

AMATEUR RADIO



Vol. 33, No. 10



OCTOBER
1965

2/6

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OUR COVER

Cheng Ann Cheok and Norman Salmon, of the Royal Victorian Institute for the Blind Youth Radio Club, working on one of the projects they had to complete to gain their Elementary Certificates.

Photo courtesy of "Herald," Melbourne.

FEDERAL COMMENT

★

Elsewhere in this issue are details of the 8th Annual Jamboree-on-the-Air which is to be held this year on October 16-17. Here is an opportunity for Amateurs to provide the means of allowing these Scouts, Girl Guides and Cubs to participate in a most enjoyable get-together.

In return you will (a) hear some very interesting items about the Scouting movement; (b) enable some lasting friendships to be made or continued; (c) gain some friend for, or possibly even new members to, Amateur Radio; (d) get the operating bug again possibly, if you have become inactive.

This idea was conceived some eight years ago at the Jubilee Jamboree at the Sutton Coalfield, England, when a number of the scouts present, who were also Amateurs and headed by a Mr. Les Mitchell, decided to keep a sked at the same time in the following year and renew the friendships of the Jamboree. Since then the idea has grown into a very popular and useful event, and each year some thousands of scouts look forward to conversing, and exchanging ideas, with members of other troops, be they in neighbouring towns or other countries. They need your help to do this.

Remember, it is not necessary to work DX stations—local and interstate contacts, as well as overseas contacts, have proved to be very enjoyable, especially if they are S9 signals. Thus v.h.f. and h.f. operators can all participate—any few hours you can give within the allotted 48 hours will be appreciated by these young people and their organisers; you will also enjoy it, as some of the subjects discussed are most interesting.

Last year over 350 Australian Amateurs took part and there were stations operating in over 70 countries around the world. This year the founder, Les Mitchell, using his call sign GB2LSR, at Hulthom, England, will be there on 14,250 Kc. (between 1900 and 2300 hours E.A.S.T.), the official World Scout Bureau stations, VE3WSB, will be there operating three stations in Canada, VK3WI will be broadcasting an official opening at 2000 hours E.A.S.T. on Saturday, 16th. Will you be there to help?

We would commend this event to you. Why not contact your local Scout group or Divisional Organiser now? The small effort involved will be amply repaid by the appreciation shown by the scouts.

FEDERAL EXECUTIVE, W.I.A.

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GETTING RESULTS ON 2 METRES F.M.

A. J. STEWART,* VK3ZFS

THIS is an attempt to assist those Amateurs using ex-commercial equipment on v.h.f. nets. As about 200 A.W.A. sets are in use, this type is of major importance, but the basic comments apply to all makes of units.

The MR3A Carphone Junior is the most popular type and will be dealt with specifically. Note that the MR10 receiver is identical to the MR3A.

Before you start, make sure that you have at least +150v. h.t. and, particularly if you are operating from 6v., check that full heater voltage is applied to tubes.

It is absolutely essential that, at all times when tuning the receiver, the limiter current be read with a meter. As the receiver tuning approaches optimum, there is a decrease in audio noise output. The same thing also occurs when the tuning is well off, only a meter tells the true story.

If you do not have access to a v.h.f. signal generator, then this problem is solved by using the transmitter and sufficient multiplier stages to give suitable signal strength.

RECEIVER

Essential is a multi-meter. If the basic movement is 0-1 mA., 100 ohms coil resistance, then your readings should be as follows:—Trip, 500-700 μ A., no signal; 1st Lim. 0.06 mA., no signal; 2nd Lim., approx. 0.1 mA. These test points are shunted with 1K ohm resistors so that the readings do not measure actual current.

R.F. STAGE

V1 6AK5, with present day trends of cascode and nuvistor stages, it seems to be inefficient. However, extensive checks reveal that a good 6AK5 will equal other types of "front ends."

The grid and anode coils need only be squeezed up to tune 144 Mc. The anode and screen dropping resistor (R2) was originally 15K ohms \pm w., this should be replaced with 27K ohms 1 w. as best results are obtained when the anode voltage is 40v.-50v.

In some units the 6AK5 will oscillate when the aerial is disconnected. This does not distract from performance in any way and provided it stops when the aerial is re-connected it should be disregarded.

It is recommended that the 1 megohm grid resistor of the 6AK5 be exchanged for two 470K ohms resistors as shown in Fig. 1.

The grid/cathode of the 6AK5 are used as a diode rectifier. Using as sensitive a meter available (500 μ A. will do) you have the ideal tune-up indicator.

There is a small amount of r.f. leakage and capacitive coupling in the aerial change-over relay, so the meter indicates maximum r.f. output from the final and it is a simple matter to tune up for maximum.

1st MIXER

V2 6AK5. The grid coil will resonate on 144 Mc. when squeezed up but the L/C ratio will not allow optimum results as the tuning C (C5) will be too large.

This coil should be replaced with one of the same number of turns wound on a 4" i.d. Do not attempt to increase coupling to the 6AK5 anode coil.

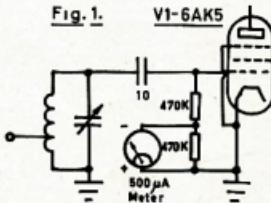
2nd MIXER

V3 6AU6. The first i.f. T3 should be adjusted on a weak but steady signal for maximum limiter current.

OSCILLATOR AND MULTIPLIER

V5 6AU6 V4 6J6. Adjust the trip grid current for maximum with the top slugs of T6 and L2. These are the two coils adjacent to V4 and V5.

The two "air" wound coils under the chassis are T2, they should be squeezed up but do not increase the coupling. Adjust the two trimmers of T2 and the secondary of T6 (the under-chassis slug) using a weak but steady signal.



2nd IF.

T4 to T9 inclusive will be dealt with as a group. A strong word of warning must be given about the indiscriminate use of the screwdriver on these stages.

The passband characteristic for the three i.f. stages is obtained by the use of double-tuned, over-coupled transformers. 2 Mc. is the centre frequency.

For the Amateur, the most practical alignment method is to use the damped alignment procedure. In this method the winding of the transformer not being tuned is shunted with a 5K ohms resistor, e.g., to tune the primary of T7 shunt 5K ohms across the secondary and tune the under chassis slug for maximum limiter current.

This procedure may seem a little involved at first, but is actually quite easy and results will be good.

Disable the receiver oscillator by removing the crystal. Plug in an 0-1 mA. meter to Jack CF2 designated 1st Lim.

Inject the signal generator output to the 2nd mixer grid using only sufficient signal amplitude to indicate about 0.2 mA. 1st Lim. current.

The signal generator must be accurately set on 2 Mc., modulation should not be used.

Fit two alligator clips on the 5K ohms resistor and clip this across the secondary of T9, adjust the primary slug of T9 (under the chassis) for maximum limiter current. Then clip the 5K ohms resistor across the primary of T9 and adjust the secondary (top of chassis) for maximum limiter current.

T8, T7, T5 and T4 should then be adjusted by the same method, but never use too high or too low a level of signal injection.

1st LIMITER

V9 6AU6. This stage is designed to limit at a grid current of approx. 0.8 mA. While the no signal or standing current is approx. 0.06 mA.

It also functions as a doubler stage, so the anode circuit is resonant at 4 Mc. Yes, you did read it correctly, doubling the i.f. frequency. The advantages are that the class "C" multiplier stage assists limiting action and that double the radiated deviation is fed to the discriminator.

2nd LIMITER

V10 6AU6. This stage is designed to limit at approx. 0.14 mA. while the standing current is approx. 0.1 mA., so that only a small increase of signal input will operate the 2nd limiter.

L3 may be adjusted for maximum 2nd limiter current on receiver noise with no signal input.

MUTE

V11 6AV6. With no signal input the second limiter is not operating and the residual noise is coupled through 100 pF. to the grid of V11.

This noise is amplified, rectified and filtered by the network of 470K, 33K ohms and 0.05 μ F. This d.c. is applied to the grid of the first audio amp. V13 to cut-off this stage.

The 50K pot is adjusted to set the threshold of operation so that no or reduced audio noise is heard when no signal is incoming.

When a signal is received, the second limiter operates, the noise output in the limiter anode circuit is reduced or eliminated, there is no cut-off bias and audio output is normal.

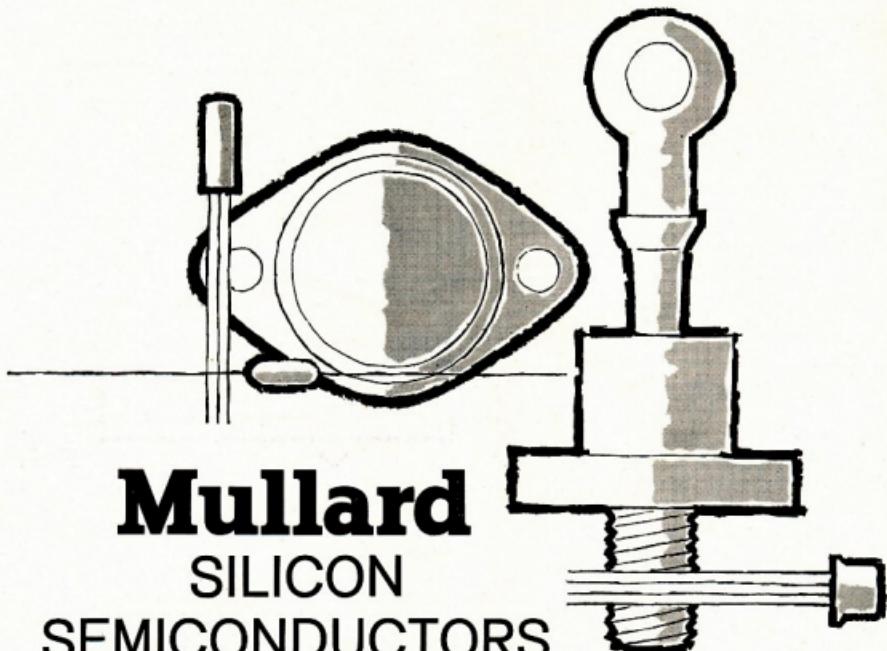
Note that the value of C57 1000 pF., C55 100 pF. and R27 470K ohms are designed so that only high frequency noise is applied to the grid of V11.

DISCRIMINATOR

V12 6ALS. The primary of T10 is the only adjustment that can be made using maximum receiver noise output.

The ideal meter to adjust the discriminator secondary (T10) is 25-0-25 μ A. Plug it into Jack CF4 (discrim.), with a known accurate 2 Mc. signal input to the i.f., adjust the secondary of T10 (top slug) for zero.

A v.t.v.m. will do nicely or you could use a microammeter, reversing the leads until zero current is indicated. This method is slow but accurate.



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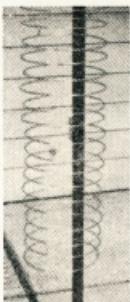
THE ANTALO*

TWO METRE HALO WITH PARASITIC ELEMENTS

ROBERT W. BANTA, K8PBA

At this time of ever-increasing activity in the v.h.f. region of the spectrum, some serious thought has been devoted toward increasing the useful radiated power from a halotype antenna. Heretofore, the only way that gain has been realised with antennas of this type has been by stacking driven elements. The antenna shown in the photos consists of a single driven element, and 16 parasitic rings, placed 8 above and 8 below the driven element on a common mast. The overall diameter is 10 $\frac{1}{2}$ inches, and the total height is 338 inches. The driven element is fed with coaxial transmission line, and the system may be easily adjusted for low s.w.r. on the line.

The name "Antalo" is a fusion of the words "antenna" and "halo." Measurements that I have made using Hewlett-Packard signal generator and v.h.f. attenuators and a receiving antenna at a distance of one mile show gains of as much as 10 db. over a reference halo, in the pattern shown in Fig. 1. Maximum gain is along a line drawn from the supporting masts through the gaps in the elements. Several others have duplicated this antenna with highly satisfactory results.



The completed "An-talo." The driven element is the double ring at the centre.

CONSTRUCTION

There are no special hard-to-get items required for the Antalo, and construction is simple. Most of the work will already have been done if you buy $\frac{1}{4}$ -inch aluminum clothesline that is in a roll $10\frac{1}{4}$ inches in diameter. The rings are merely cut already bent to size for use as the parasitic elements. The only other materials required are a piece of pipe at least 5 feet long and not smaller in diameter than $\frac{3}{4}$ inch, two pieces of Flexilex

or similar insulating material, and some machine screws.

Two turns, plus about 6 inches, of the aluminium wire are needed for the driven element. A 6-32 spade lug is slid on to the wire approximately to its centre. The lug is used as one of the supports for the driven element. The wire is bent into the form shown in Fig. 2. A loop of 5/32 inch inside diameter is bent at each open end of the wire.

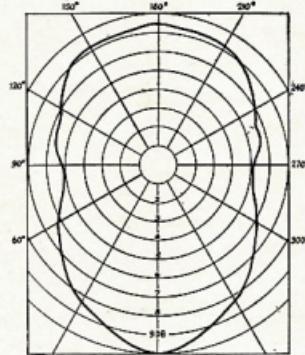


Fig. 1. Field pattern of the Antalo antenna on 145.342 Mc. and at a distance of 1 mile. Gain 1000 watts.

An insulating mounting plate for the driven element is made by cutting and drilling a piece of 1/4-inch Plexiglas sheet as shown in Fig. 3. The element is attached to the insulator with the spade lug at the upper 1/4-inch hole, and 8-32 machine screws through the terminal loops of the wire at the bottom pair of holes, as indicated.

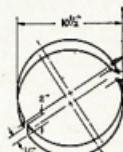
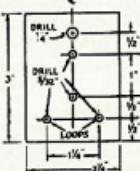


Fig. 3. The insulating mounting for the driven element is made from a piece of $\frac{3}{8}$ -in. Plexiglas, cut and drilled as indicated.



A spacer is cut from $\frac{1}{2}$ -inch Plexiglas and fit between the folded ends of the driven element, as shown in Fig. 4. A similar spacer could also be made from $\frac{1}{2}$ -inch sheet material if the rod is not available.

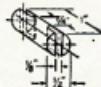


Fig. 4. The spacing insulator for the driven element may be made from a piece of rod or sheet of Plexiglas or other good insulating material.

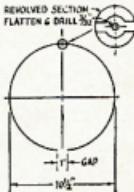


Fig. 5. The parasitic rings are also of $\frac{1}{8}$ -in. aluminium clothes-line, flattened at the centre for mounting, as shown in the detail.

For the parasitic elements, 16 rings of the aluminium wire with a 1-inch gap are cut as shown in Fig. 5. A flat spot is hammered in the wire at a point diametrically opposite the gap, and drilled as indicated in the detail sketch.

The top end of the pipe mast is drilled and tapped according to Fig. 6. The three larger holes are for mounting the driven element with its Plexiglas insulator. The parasitic elements are attached directly to the mast without

(Continued on page 1)

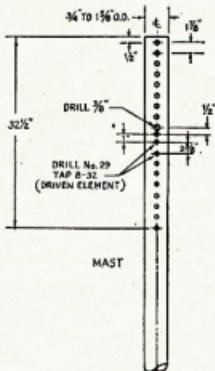


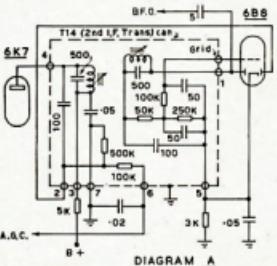
Fig. 6. Sketch showing drilling pattern of the mast. Except as indicated, holes are made with a No. 43 drill and tapped for 4-48 machine screws, and are spaced 1½ inches apart. The mast section should be of aluminum or steel, and at least 5 feet long.

* Reprinted from "QST," December, 1954.

MODIFICATION OF BENDIX COMPASS RECEIVER

REV. BRO. P. L. ELLIS*

The changes were devised to obtain maximum selectivity from the set which has one stage of i.f. amplification at 110 Kc. The idea of the cathode follower was gleaned from an article in "Electronics World" dealing with noise suppression, and the voltage doubler detector will be familiar to readers of "Radio Television and Hobbies."



By inspection of the original circuit (diag. A) one will notice that the primary of the last i.f. transformer is loaded by the a.g.c. diode and its network of resistors, while the secondary serves the usual audio diode. This loading causes the "Q" of the transformer to be considerably reduced, with adverse effects on the set's selectivity.

Diagram B shows modifications to lessen these effects. The a.g.c. circuitry is removed from the primary and the secondary is fed to the grid of the

* St. Patrick's College, Goulburn, N.S.W.

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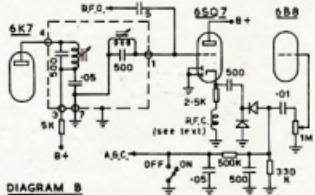
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cathode follower. The effective input impedance of this unit is extremely high, thus avoiding the heavy damping of the original circuit components.

The r.f. choke is a home-made unit. The coils from two old capacitor-tuned i.f. transformers were used. These were wound on solid wooden formers. The formers were drilled through the centre, and so cut, that the four windings could be assembled on a thin wooden shaft, and spaced something less than $\frac{1}{4}$ " apart. By joining the coils in series a choke with an inductance several times greater than 2.5 mH. was available. This value was considered advantageous as the i.f. to 110 Kc.



The voltage doubler detector more than compensates for any losses inherent to the cathode follower. By correct orientation the germanium diodes of the detector will produce a negative d.c. voltage across the audio load and this can be used as the a.g.c. voltage.

The b.f.o. injection now goes to the grid of the cathode follower. It was found necessary to earth the a.g.c. line when listening to c.w. or s.s.b. as the

a.g.c. considerably reduced sensitivity when the b.f.o. was active.

The component values shown in the circuit may not necessarily give optimum results. They were used simply because they were on hand and worked. Nevertheless, the cathode follower is the significant unit in the modifications, and the improved selectivity was obvious on first trial of the receiver. Needless to say I have no "selectivity figures" to offer; but the results were well worth the modicum of work required.

—Rev. Br. P. L. Ellis.



Technical Correspondence—

RE LOW NOISE FIGURE CONVERTER FOR 2 MX

Editor "A.R." Dear Sir,

The footnote to my article "A Low Noise Figure Converter for Two Metres" states that the addition of a second GE7077 grounded grid amplifier lowered the noise figure of the converter from 4.5 db. to 2.5 db. In order to alleviate any bewilderment about this statement an explanation may be considered necessary.

It may seem paradoxical that the addition of an identical amplifier stage should improve the noise figure so markedly, but it should be noted that the overall noise figure depends on not only the r.f. amplifier noise figure but also on the mixed noise figure.

The formula for this relationship is:

$$F_{\text{TOTAL}} = F_1 + \frac{F_2}{G_1}$$

where F_{TOTAL} is the overall noise factor.

F_1 is the noise factor of the first stage (in this case the r.f. stage).

G_1 is the power gain of the first stage.

F_2 is the noise factor of the second stage (the mixer).

Note also that Noise Figure = $10 \log_{10}$ noise factor.

It can be seen that if F_2 , the mixer noise factor, approaches or exceeds the power gain of the r.f. stage G_1 , the overall noise factor will be degraded. This was in fact what happened with only one r.f. stage. Addition of a second r.f. stage will increase G_1 , thereby reducing the term $(F_1 - 1) + G_1$ to a negligible amount, bringing the overall noise factor of the converter very close to the noise factor of the r.f. stage alone.

After completion of the converter, and the measurement of the n.f. it is apparent that if a grounded cathode r.f. stage had been used to obtain a higher power gain an improved noise figure on 4.5 db. would have been obtained for the single r.f. stage. However, it would appear that the application of valves for this type of equipment is nearing an end with the availability of v.h.f.-u.h.f. type transistors, on the local market. An excellent article introducing this "new look" in converters appeared in August '65 "A.R."

—C. J. Hurst, VK5SHJ.

AMATEURS TO PLAY HOST TO THE YOUTH OF THE WORLD

During the week end of October 16-17, Radio Amateurs from 70 countries will open up their "Ham shacks" to members of the Boy Scouts' and Girl Guides' Associations for the Boy Scouts International 8th Jamboree-on-the-Air.

Since 1965 is International Co-operation Year, organised by the United Nations, the Boy Scouts World Bureau proposes to dedicate this year's Jamboree-on-the-Air to international co-operation and goodwill. The commencing date, 16th October, is particularly appropriate, as it has been selected by the Food and Agriculture Organisation of the U.N. for their "Mobilisation of Youth Appeal" in connection with the Freedom from Hunger Campaign.

If you are one of the "300 plus" Australian Amateurs who were able to give a few hours of your time to help these young people last year, then you are no doubt looking forward to this year's "event" as eagerly as they.

If you have not participated in Jamboree-on-the-Air before may I suggest you give it a go. An adult Scouter will be in charge of each Group and he will arrange a roster of Scouts and Guides to visit your "shack" over the week end at times to suit you, and in groups depending upon the size of your "shack."

The rules are very simple and were explained in the September issue of "A.R." The call sign is "CQ Jamboree" or on c.w. "CQ Jam."

This is not a contest and there are no prizes given for the most contacts although a participation certificate will be issued by the Boy Scouts' Association to every Amateur and Youth Group who send in a log of stations and Scout Groups contacted at Jamboree-on-the-Air Branch Organiser, c/o. Boy Scouts H.Q. of your own particular State. Log sheets and all other relative information are available from any Scout Group.

In past years many Short Wave Listeners have participated in Jamboree-on-the-Air. They, too, will receive a participation certificate if they send in log of stations and Scout Groups heard during the week-end.

We are particularly interested in receiving photographs of your station rig with Scouts and Guides participating in Jamboree-on-the-Air to forward to the World Scout Bureau in Canada.

Last year a photograph of a Victorian Scout Group participating by the courtesy of a Victorian Amateur, VK3AHJ, was chosen as the front cover piece for the 8th Jamboree-on-the-Air World Report which was sent to the 70 different countries around the world who took part in this "event."

This was great publicity for both the Australian Radio Amateur and the Australian Boy Scouts' Association.

So let us, the Radio Amateurs of Australia give these young people the opportunity to talk and make friends with other young people throughout Australia and the world and introduce them to our hobby of Amateur Radio and Electronics.

—Jack Nicholson (VK3AAJ), Victorian Branch Organiser, Boy Scouts Association.

RESULTS ON 2 MX F.M.

(Continued from page 3)

If you can obtain 20 db. of noise reduction with a 0.5 μ V. input signal then your work has not been in vain and you will easily read that weak signal.

The presence of vibrator hash, ignition or impulse type noise indicates that your receiver is not operating correctly. It should be possible to operate f.m. gear of this type in extremely noisy locations without suppression where "a.m." contacts would be impossible.

It is relatively easy to operate this type of equipment from a.c., but there are several points to keep in mind. The receiver should not have more than +170v. of h.t. but more could be applied to the transmitter. The p.t.t. relay requires a low d.c. voltage, this could readily be obtained with a silicon rectifier from the filament supply.

The accompanying circuit (Fig. 4) answers all points quite nicely but be sure that R1 (Fig. 4) will dissipate the power adequately and when transmitting, there is not excessive dissipation in the p.t.t. relay coil.

Remember, that this carbon microphone voltage is derived from the h.t. —ve, so care must be taken to prevent power supply hum from getting into the audio.

The following f.m. net frequencies are in regular use in VK3:—

52.525 Mc.

145.854 Mc.

146.000 Mc.

146.146 Mc.

435.000 Mc.

MR10 socket wiring details:—

Control Unit	Tx/Rx
1.—L.t. active	1.—Tx. fils.
2.—Trans. control	2.—Rec. fils.
3.—Rec. control	3.—Channel s/w.
4.—Output comm.	4.—Mute
5.—3 ohm spkr. output	5.—Output comm. mon
6.—Spare	6.—3 ohm output
7.—Mic. active	7.—Bias
8.—P.t.t. control	8.—P.t.t. relay
9.—Rec. h.t. plus	9.—Trans. h.t.
10.—Bias	10.—Rec. h.t. plus
11.—Mute control	11.—Mic. active
12.—Earth	12.—Mic. supply

CONCLUSION

Don't despair about f.m. as all you have to do here in VK3 is to barely get on the air and there are least 100 experts just waiting to help.



THE ANTALO

(Continued from page 5)

insulation. These elements should not be mounted until the driven element has been adjusted.

ADJUSTMENT

A 2-metre transmitter of the 2- to 5-watt variety is desirable as the signal source, and an "in-the-line" type of standing-wave indicator should be inserted in the RG-8/U transmission line to the driven element. Adjust

the transmitter frequency to the centre of the desired range. The spacing between the open ends of the driven element is then adjusted for minimum reflected power. When this adjustment has been found, "Q Dope" is applied to the Plexiglas spacer to fix the spacing at this point. The parasitic elements should be mounted now, and the gap spacing of each element adjusted for minimum s.w.r., starting with the elements closest to the driven element and working outward from there.

The author wishes to express his thanks to W8DQR, W4ZNV and K4TGH for their assistance, and W8UPB and W1ICP for their encouragement. •



NEW CALL SIGNS

JUNE, 1965

VK2ZUJ—J. H. Frazer, 4 Cropley Street, Rhodes, VK2AAS—R. F. Woolley, King's Road, Federal, VK2ANQ—A. Milner, 2 Elouera Road, Avalon Beach.

VK2AVZ—R. F. Goldsborough, 16 Duke Street, East Gosford.

VK2ZJD—M. J. Bennett, Married Quarters 15, Victoria Barracks, Paddington.

VK2ZMV—A. W. Matherole, 78 Aberdare Road, Concord.

VK2ZPS—P. J. Vandersleesen, 29 Yanko Avenue, Waverley.

VK2ZCF—L. P. Cork, Glenview, Wollomombi, VK3AFB—R. F. Ferguson, 57 Surrey Road, South Grafton.

VK3ZEW—L. J. Jones, School of Radio, R.A.A.F. Base, Laverton.

VK3ZGE—T. A. J. Johnson, 45 James Road, Petrie Gully.

VK3ZII—A. R. McDonald, 38 Thompson Street, Sale.

VK3ZQJ—Rev. J. M. O'Kelly, St. Joseph's Presbytery, Warragul.

VK3ZSP—L. J. Porter, School of Radio, R.A.A.F. Base, Laverton.

VK3ZWP—W. B. Pywell, 26 Laing Street, Mont Albert.

VK3ZWS—W. K. Slater, 44 Fowler Street, Concord.

VK4ZLJ—A. Davies, 14 Noeline Street, Dorrington, Brisbane.

VK5MM—L. D. McKenzie, 3 Eric Avenue, Black Forest.

VK5NT—R. J. Tobeuff, 14 Willingale Avenue, Lockley.

VK5PT—Third Goodwood Radio Club, 51 Frederick Street, Clarence Park.

VK5ZBZ—R. G. Henderson, 22 Andrews Road, Elizabeth Town.

VK5ZBK—B. J. Kenny, 52 Penno Parade, Belgrave.

VK5ZDV—R. K. Von Sanden, 19 Herbert Street, Plympton Park.

VK5ZWA—M. W. Walker, Station: 61 Swaine Avenue, Rose Park; Postal: 7 Philpott Avenue, Paradise.

VK6DI—B. J. Burns, 897 Kerin Place, Rapid Creek, Darwin.

VK6LV—R. M. Mathers, Brothers College, Franklin Street, Leederville.

VK6ZBP—P. R. Beck, 1 Rawson Street, Subiaco.

VK6ZET—M. J. Vellinga, 233 Mill Point Road, South Perth.

VK6ZK—M. H. Baker, 8 Gunea Road, City Beach.

VK6ZFC—R. J. Campbell, 3 Hardy Street, North Perth.

VK6ZFS—R. N. Stephen, 24 Dunblane Road, Florest Park.

VK7ZBL—B. Kelly, 29 Park Street, Wynyard.

VK7ZPD—P. R. Dowde, 77 Talbot Road, Nunawading.

VK7ZMW—A. M. Wood, Walton Street, Huonville.

VK7KZ—R. J. Geerves, 47 Bowden Street, Glenorchy.

VK9FE—R. E. Earley, C/- Box 301, Rabaul, T.P.N.G.

VK9TB—C. W. Eastow, 8 Agua Street, Port Moresby.

VK9ZEV—C. S. Schulz, C/- Posts and Telegraphs, Rabaul, T.P.N.G.



KB6CY is now on the air and the address for anyone desiring a QSL is through Honolulu at the following address: Robert York, KB6CY, Bendix Field Engineering Corp., 3131 Nimitz Hwy., Suite 210, Honolulu, Hawaii, 96816. Please complete log for KB6BN and will QSL anybody that wants one.

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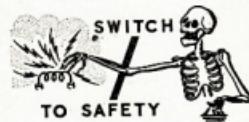
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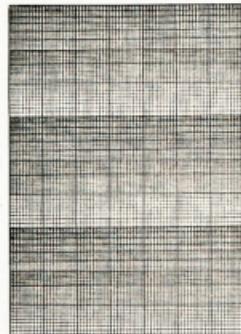
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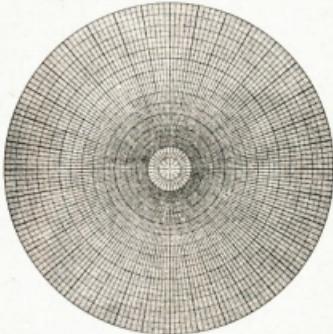
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ONE-TRANSISTOR TOP BAND CONVERTER*

TO WORK WITH ANY MEDIUM-WAVE RECEIVER

B. J. P. HOWLETT, G3JAM

OF the three main points at which one can have the local oscillator to convert the 160 m. band to medium wave, namely:

- (1) Oscillator above signal frequency;
- (2) Oscillator above IF but below signal; or
- (3) Oscillator below IF and below signal,

the writer believes that the most difficult is the first case. Besides giving reverse tuning, the 2nd channel lies near the 49 m. broadcast band, full of high power transmissions, and short-wave breakthrough could become a severe problem.

The choice seems to lie between Case No. 2 and Case No. 3. Taking some typical values:

	No. 2		No. 3	
	A	B	A	B
Osc.	1100	950	880	600
Kc.	Kc.	Kc.	Kc.	Kc.
IF	700-900	850-1050	1000-1200	1250-1400
2nd Ch.	360-460	300-400	300-400	600-800

Number 2B is definitely out, and one can look at it two ways. The IF range includes the oscillator frequency. Alternatively, the 2nd harmonic of the oscillator falls in the 160 m. band. In fact any oscillator frequency between 900 and 1000 Kc. is automatically ruled out. However, frequencies HF of this are quite in order up to about 1250 Kc. when the main receiver will reach the LF end of the band coverage.

No. 3B itself is workable, just. The third harmonic of the oscillator falls at 1.8 Mc. and the 2nd harmonic at its IF equivalent. Oscillator frequencies between 600 and 667 Kc. are out for the same reason—harmonic falls in the band. And that leaves a broad section 667 to 900 Kc. in which to play around, so Case No. 3A is near-enough in the middle of the optimum section.

It is fortunate for Londoners that the corresponding IF range does not include any powerful local stations; other parts of the country may not be so lucky.

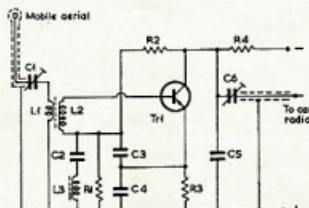
The writer has actually tested using all the investigated possibilities, and has confirmed all the possible reasons for rejection. As a result, 820 Kc. was chosen for the local oscillator, giving a tuning range of 980-1180 Kc. (2nd channel 360-160 Kc., which admittedly includes Droitwich, but this station is no problem in S.E. England).

CIRCUIT

The great care in choosing the IF range was well worth the trouble, as only a single OC44 frequency changer was required in the end, connected in a Clapp circuit with high-Q coils knocked up with 34 g. wire on cast-off fragments of rod aerial ferrite! It was found important to avoid diffused-junction transistors of all kinds, for two reasons:

In the first place, it is desirable not to have any gain on short waves proper; and if there is no appreciable gain at higher frequencies there is less tendency for the oscillator waveform to become distorted. The local oscillator was adjusted so that it starts readily but gives near enough a sine wave on an oscilloscope.

Stage gain is slight, but the frequency change action introduces very little noise, and when used with a good centre-loaded whip a Pye hybrid type car radio sounded just like a proper Top Band receiver. Matching out is done with C1 and matching in with C6. The series-tuned input greatly improved reception when used with the regular car aerial but performance is not very impressive under those conditions.



Circuit of the transistor converter described by G3JAM. The choice of local oscillator frequency and the IF is discussed in the text. This simple arrangement will enable almost any medium-wave receiver—car radio, transistor portable or domestic BC set—to give coverage over the 160-metre Amateur band.

C1—30 pF, Philips trimmer.
C2, C3—0.001 μ F.
C4—0.005 μ F.
C5—100 pF, comp. trimmer.
R1, R3, R4—2,700 ohms.
R2—15,000 ohms.
Tr1—OC44, or similar.

Notes: For L1 and L3 use single-layer winding of off-cut of ferrite-rod aerial material, adjusting turns experimentally. For L2, fit turns of insulated wire over-wound on L1.

Used in the home station with the same centre-loaded whip, but working into a CR-100, it was extremely difficult to tell when the converter was in use, so the comparison had to be by listening carefully for MW breakthrough. There is a little such down in the South-East, the strongest being Hilversum III. (Since writing this, one of the D.I.Y.S. stations has appeared in that section of the MW band!)

The writer would like to add that the input tuning does not have to be removed when using a centre-loaded whip; two series tuned circuits in series with one another still tune to the same frequency—the better one virtually takes charge. In fact, it all helps in keeping out unwanted QRM.

CONCLUSION

Writing in the past tense does not imply that the unit no longer exists.

It was built for and is used by a friend—the writer has no vehicle. Sturdy construction and secure bonding of earths will help to make the unit long-lived and reliable whether used on a 9-volt dry battery (consumption 0.8 mA.), or on the 12-volt car battery (consumption just over a milliamp).

On the car battery, consumption is so small that it is hardly worth the effort of fitting a switch!

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ROSS HULL MEMORIAL V.H.F. CONTEST, 1965-66

The Federal Contest Committee of the Wireless Institute of Australia invites all Australian and Overseas Amateurs and Short Wave Listeners to participate in this annual Contest which is held to perpetuate the memory of Ross Hull whose interest in v.h.f. did much to advance the art.

A Perpetual Trophy is awarded annually for competition between members of the W.I.A. in Australia and its Territories, inscribed with the name and life's work of the man whom it honours. The name of the winning member of the W.I.A. each year is also inscribed on the Trophy. In addition, this member will receive a suitably inscribed certificate.

Objects: Australian Amateurs will endeavour to contact as many other Amateurs in Australia and Overseas under the following conditions:

Date of Contest: From 1401 hrs. G.M.T. 11th December, 1965, to 1359 hrs. G.M.T. 16th January, 1966.

Duration: Any consecutive 216 hours (9 days) within the dates mentioned above, this period to be at the choice of the operator.

RULES

1. There shall be three main sections to the Contest:

- (a) Transmitting, Open, 52 Mc. and higher;
- (b) Transmitting, Phone, 52 Mc. and higher;
- (c) Receiving, Open, all bands, 52 Mc. and higher.

2. All Australian and Overseas Amateurs may enter for the Contest whether their stations are fixed, portable or mobile. If portable or mobile operation is used, this to be stated, giving the general location of such operation.

3. All Amateur v.h.f. bands may be used, but no cross-band operating is permitted. Operators are cautioned against operating transmitting equipment on more than one frequency at a time, particularly when passing cyphers. Such operation may be grounds for disqualification of a contestant.

4. Amateurs may enter for any of the transmitting sections.

5. Only one contact per band per station is allowed each calendar day.

6. Only one licensed Amateur is permitted to operate any one station under the Owner's call sign. Should two or more operate any particular station, each will be considered a con-

testant and must submit a separate log under his own call sign.

7. Entrants must operate within the terms of their licences.

8. **Cyphers:** Before points may be claimed for a contact, serial numbers must be exchanged and acknowledged. The serial numbers of 5 or 6 figures will be made up of the RS (telephony) or RST (c.w.) report plus three figures commencing from 001 for the first contact and will increase in value by one for each successive contact. If any contestant reaches 999 he will start again with 001.

SCORING TABLE

Distances Between Stations	52 Mc.	144 Mc.	432 Mc.	576 Mc.	Higher
Up to 10 miles ...					
Over 10 and up to 25 miles ...			1	2	5
Over 25 and up to 50 miles ...			2	5	10
Over 50 miles and up to 100 miles ...	2	1	5	10	15
Over 100 miles and up to 200 miles ...	5	5	10	15	20
Over 200 miles and up to 300 miles ...	10	5	15	20	
Over 300 miles and up to 500 miles ...	5	10	20		
Over 500 miles and up to 1000 miles ...	1	15	30		
Over 1000 and up to 1500 miles ...	1	20			
Over 1500 and up to 2500 miles ...	5	30			
Over 2500 and up to 3500 miles ...	10				
Over 3500 and up to 5000 miles ...	15				
Over 5000 miles ...	20				

9. Entries must be set out as shown in the example, using only one side of the paper. Entries must be postmarked not later than the 14th February, 1966, and clearly marked Ross Hull Contest, and addressed to **Federal Contest Manager, Box N1002, G.P.O., Perth.**

10. **Scoring:** for all sections will be based on the attached table. Contestants will have to agree between themselves as to the distance between their stations. Such distances must be shown in the log entry as shown in the example. Failure to make this entry will invalidate the particular claim. Some typical distances are given in the attached table.

11. **Logs:** All logs shall be set out as in the example and in addition will carry a front sheet showing the following information.

Name..... Call Sign.....
Address..... Section.....
Claimed Score.....

Operating period:
From hrs. G.M.T. / /
to hrs. G.M.T. / /
i.e. 9 consecutive days.

Highest score over a 48 hours period was points.

Operating period:
From hrs. G.M.T. / /
to hrs. G.M.T. / /

Declaration: I hereby certify that I have operated in accordance with the Rules and Spirit of the Contest.

Signed.....
Date.....

Note: Entries on the front sheet must be clearly shown in block letters.

12. The right is reserved to disqualify any entrant who, during the Contest, has not observed the regulations or who has consistently departed from the accepted code of operating ethics.

13. The ruling of the Federal Contest Manager of the W.I.A. will be final. No dispute will be entered into.

14. **Awards:** Certificates will be awarded to the winners of each section in each VK and Overseas Call Area. The VK contestant who returns the highest score in the transmitting section and who is a financial member of the W.I.A., will have his name inscribed on the Trophy which will be held by his Division for the prescribed period. His Certificate will be suitably inscribed. In addition a special certificate will be awarded to the Contestant, who shall not be the Trophy winner, and who returns the highest scoring log covering a period of any 48 consecutive hours (2 days) within the contest duration, such period to be nominated by the contestant. This period must be within the duration of the contest, but need not be within the main 9-day period. The period chosen must be stated on the front sheet—refer Rule 11.

RECEIVING SECTION

1. Short Wave Listeners in Australia and Overseas may enter for the Contest, but no transmitting station may enter.

(Continued on next page)

EXAMPLE OF TRANSMITTING LOG (Brisbane Station)

Date/ Time G.M.T.	Band Mcs.	Emis- sion Power	Call Sign	RST/No. Sent	RST/No. Recvd.	Dist. Miles	Points Claim
24th Dec. 0100	52	A3 (a) 50 watts	VKTZAI	59001	1110	1	
G.M.T. 0100	52	50 watts	VK4NG	59002	330	5	
G.M.T. 0230	144	A3 150 watts	VKSZK	56003	990	15	
G.M.T. 0235	144	150 watts	VK3ZJQ	45004	46021	850	15

EXAMPLE OF RECEIVING LOG (Perth S.w.l.)

Date/ Time G.M.T.	Band Mcs.	Call Heard	RST/No. Sent	Station Called	Distance Miles	Points Claim
2nd Jan. 1000	52	VKSZDX	59221	VK8KK	1330	1
G.M.T. 1000	52	VK2ZCF	58195	VK6ZAA	2040	5
G.M.T. 1110	422	VKSZDS/6	57061	VKSZLK/6	60	5
3rd Jan. 0900	144	VKSZHZ	44102	VKSZCN	1330	20
G.M.T.						

2. Contest times and logging of stations on each band are as for the transmitting sections, however, there is no 48 hours sub-section.

3. To count for points, logs will take the same form as for transmitting sections but will omit the serial number received. Logs must show the call sign of the station heard (not the station worked), the serial number sent by it, and the call sign of the station being worked.

Scoring will be on the same basis as for transmitting stations, i.e., on the distance between the Listener's station and the station heard. See the examples given, I is not sufficient to log a station calling CQ.

4. A station heard may be logged only once per calendar day on each band for scoring purposes, but additional reports will be of value to the F.C.M.

5. **Awards:** A certificate will be awarded to the highest scorer in VK. Other certificates may be awarded by the Federal Contest Manager depending on conditions and activity.

GENERAL NOTES

The contest period has been altered in line with suggestions made by many

contestants and an extra certificate will be awarded for the best score over a 48-hour period in accordance with a motion passed at the 1965 Federal Convention. However, the 9-day winner is not eligible for the 48-hour award. Also changes have been made in the Scoring Table to accommodate some of the alterations suggested by the VK6 Division at Federal Convention.

Since only a small number of logs are received for the Receiving Section, only one Certificate will be awarded this year unless extra activity warrants otherwise.

It is suggested that contestants obtain a large-scale map of Australia and of their State and measure out the distances involved in contest contacts that are not given herein.

Contestants are reminded that times must be shown in G.M.T. in accordance with Institute policy to foster the use of G.M.T. where practicable. Failure to observe this rule will be grounds for disqualification.

Comments concerning the Contest, with particular reference to: Duration of Contest, Points Scoring System, Rules of Contest, would be appreciated by the Federal Contest Manager.

DISTANCE TABLE

	Syd.	Canb.	Bris.	Melb.	Hob.	Adel.	N. Zea.	Dar.	Perth
Sydney	0	160	460	460	660	710	1300/	1950	2040
Canberra	160	0	600	290	530	670	1300/	1930	1940
Brisbane	460	600	0	860	1110	990	1500/	1790	2240
Melbourne	460	290	860	0	400	400	1500/	1930	1720
Hobart	660	530	1110	400	0	710	1300/	2280	1880
Adelaide	710	670	990	400	710	0	1900/	1620	1330
New Zealand	1300/	1300/	1500/	1500/	1300/	1900/	0	2550	3000/
	1500	1500	1700	1700	1500	2100			3200
Darwin	1950	1930	1790	1930	2280	1620	2550	0	1650
Perth	2040	1940	2240	1720	1880	1330	3000/	1650	0
							3200		

A £1's WORTH OF TAPE TOOK THE PHOTOS OF MARS

A length of "Scotch" magnetic recording tape worth about £1 was used on July 14 to send home to the world photographs of the planet Mars.

Mariner Four, the spacecraft which was on schedule when it flew past the red planet had travelled 350 million miles since it was launched last November. Aboard the vehicle, 138,000 components had functioned for some 5,500 hours in space.

Such industrial firms as North American Aviation, General Electric, Lockheed Missle and others were included on the list of Mariner's contractors. More than 60 sub-contractors provided 1.5 million dollars worth of hardware and instruments. More than 1,000 other firms provided another 19 million dollars worth of procurements.

But in the end Mariner Four's photographic success depended on the ability of that one strip of magnetic tape—thinner than a pencil—to record and faithfully reproduce photographs of Mars. The tape was 3M Company's "Scotch" Brand Instrumentation Tape, which had also been used on Ranger Eight and Ranger Nine to record and reproduce thousands of photographs of the Moon.

As Mariner Four passed within about 5,600 miles of Mars, a single television camera took 21 black and white pictures. Two at a time the pictures were stored on the tape in digital

form for later playback. This was necessary because, while picture data is recorded at 10,700 binary digits (bits) per second, the radio transmission rate from Mars is an extremely slow 8.3 bits per second. The slow transmission is required to achieve reasonable picture quality over the 160 million miles (241,397,000 kilometres) of communications distance.

Tape length was held to 330 feet (100.584 metres) to test the recorder's ability to operate the extremely slow speed on one reel of one inch (0.0254 cm.) per second. The unique recorder, built by Raymond Engineering Laboratory Inc. of Middletown, Connecticut, U.S.A., was turned off during the first pair of pictures and was turned on again to record the next pair.

The instrumentation tape used in the space-craft and on the ground recorders was designed to withstand severe heat, vibration, and the effects of the Mariner Tapes. 3M engineers passed them through 68 specific tests and later subjected them to 35 more.

Playback of the pictures—which took 8 hours 20 minutes for each picture—began 13 to 15 hours after the pictures were taken. Back on Earth, the television transmission of the photographs and engineering transmission of the tape received on much the same kind of 3M tape. A 3M Minicom recorder/producer was among other ground equipment to receive the transmissions from the spacecraft. Pictures were reproduced by running the ground recorded tape through a video kinescope system in much the same manner as Ranger Nine's Moon pictures were processed.

Correspondence

Any opinion expressed under this heading is the individual opinion of the writer and does not necessarily coincide with that of the publishers.

COST OF OVERSEAS EQUIPMENT

Editor "A.R." Dear Sir,

I sincerely trust that this letter will not be considered in any light that I am "having go" at any particular agent or importer, but rather that of someone seeking genuine information on the price difference of Radio Materials in their country of manufacture and the United Kingdom.

When visiting England last year I was privileged to go through the works of Messrs. K. W. Electronics, at Dartford, and was given leaflets, etc., covering many of the pieces of equipment they have manufactured, and would like to make an example of the price difference between England and Australia of their K.W.2000 Transceiver, for which I give the following figures:

Price in England, with Sales Tax:	£170
K.W.2000 Transceiver	£170
Power Supply Unit, a.c. or d.c.	£23

Total cost £193

Equivalent Price in Australian £s.	£2110 0 0
Power supply unit, a.c. or d.c.	£365 0 0

Total cost £2485 15 0

Importer's Sale Price in Australia £s.	£337 12 6
Power Supply Unit, a.c. or d.c.	£56 7 0
Plus 12½% Sales Tax	£49 7 0

Total Cost £2443 5 0

Do not let us overlook that the English price quoted does have their Sales Tax included and what is exported this Sales Tax is not applied. Assuming that the Sales Tax in England is 12½% it would appear that the total retail export price would be in the region of £2117/10/- Australian £s. But let us not forget that the importers do buy at wholesale price, which would, I feel, include a fair and reasonable profit for them.

It would be most interesting to hear the importers' answer to the question of how the cost to the public of this piece of gear more than double its cost to the jobber. The information as to shipping costs, insurance and import duty would of course be a clear pointer as to where the difference lies.

Whilst one is quite prepared to pay a reasonable price for an article one does not expect such a wide difference in price and one can only assume that the unfortunate purchaser of Radio Equipment, at this margin of difference between wholesale cost and retail sale, does so in ignorance of its original cost.

Please accept my assurance that I am in no way connected with any Import or Radio business in any way and am merely seeking to have, what is to me an inexplicable explanation.

—C. Whalley, VK6KK.

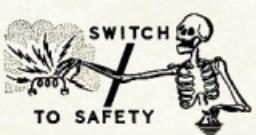
R.D. SCORING

Editor "A.R." Dear Sir,
On the eve of the 1965 R.D. Contest it is appropriate to query the reason for the Committee denying VK1 an independent scoring committee.

As the title would seem to defy logical deduction, an explanation would be of interest. Right or wrong, VK1 is a small island area covering a population of 86,000 plus. It is home to more Amateurs than VK7, 8 and 9 combined, and in my view should operate on the same basis for scoring as every other Division.

Perhaps the committee can explain? If there is no reasonable explanation, the scoring table for next year should be revised.

—Col. Harvey.



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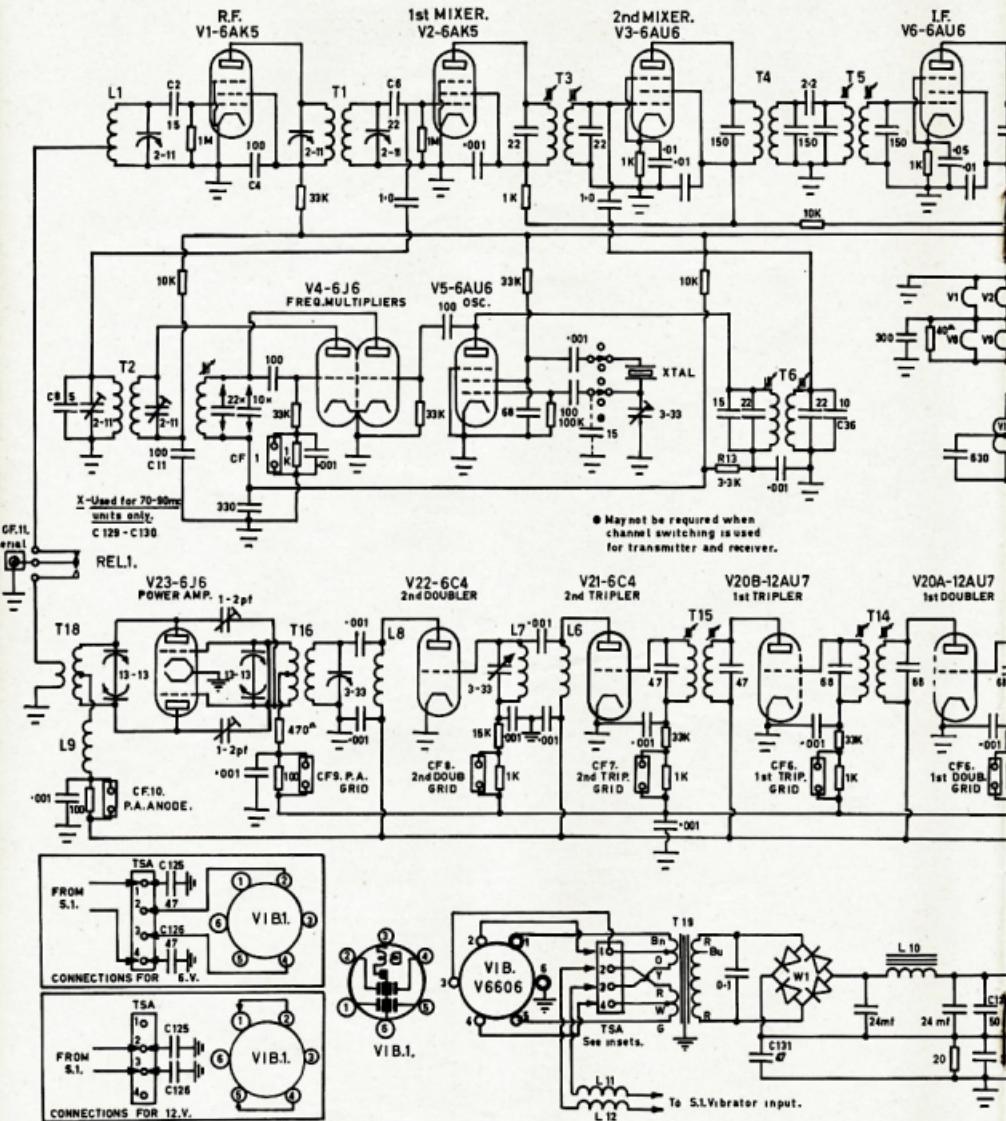
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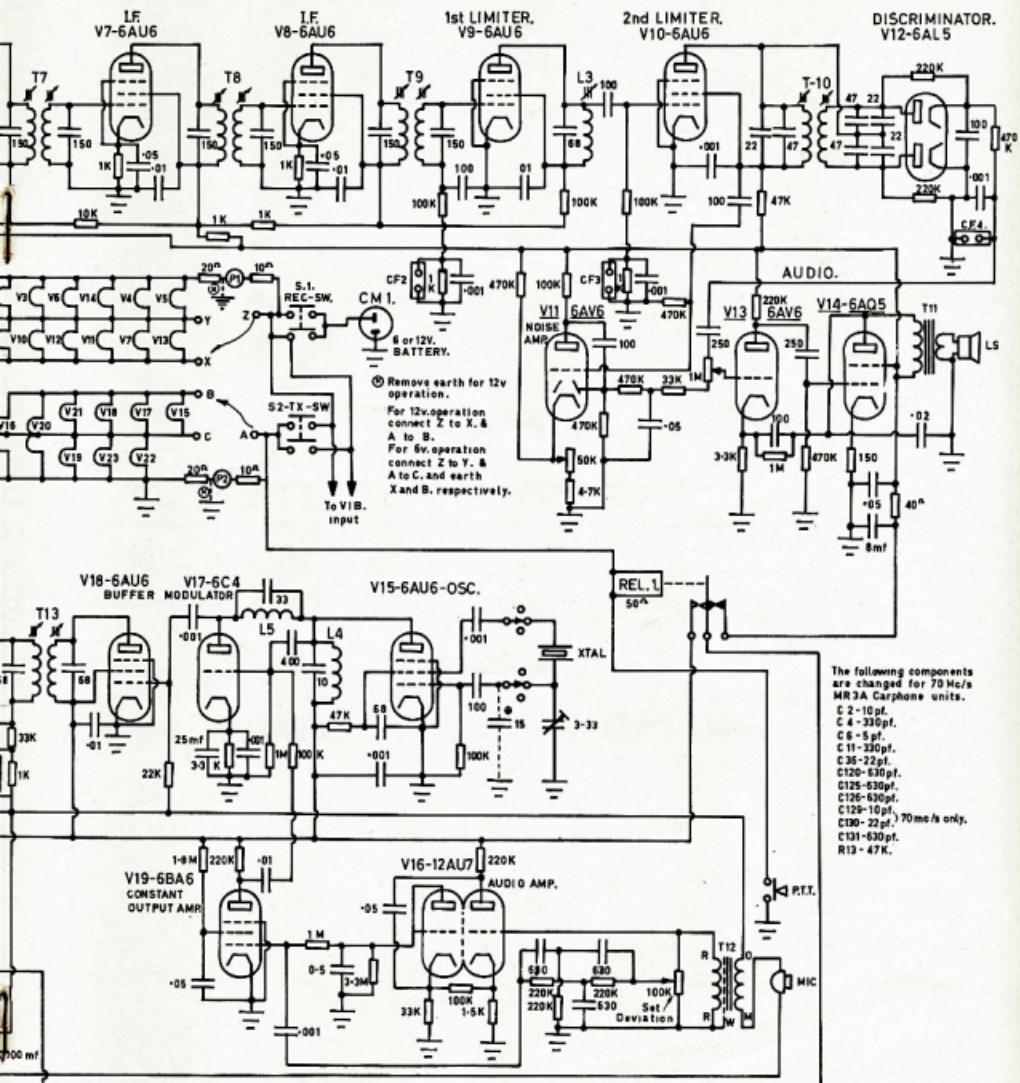
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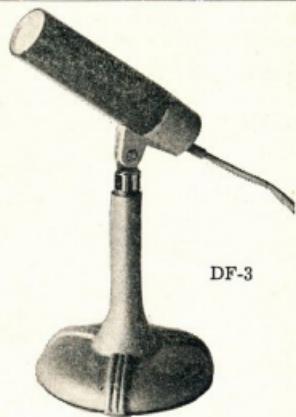
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RULES: 1965 "CQ" WORLD WIDE DX CONTEST—Oct. 23-24, Nov. 27-28

CONTEST PERIOD

Phone: Starts 0000 G.M.T. Saturday, October 24.
Ends 2400 G.M.T. Sunday, October 24.
C.w.: Starts 0000 G.M.T. Saturday, November 27.
Ends 2400 G.M.T. Sunday, November 28.

BANDS

Contest activity will be in the 1.8, 3.5, 7.0, 14, 21 and 28 Mc. Amateur bands.

TYPE OF COMPETITION

- Single operator.
- All Band.
- Multi-Operator, Single transmitter.
- Multi-Operator, Multi transmitter.
- Multi-operator will be judged on all band operation only.
- Inter-Club. (Local DX clubs.)

EQUIPMENT

There is no limit to the number of transmitters or receivers used, and competitors may use the maximum power permitted under the terms of their licence.

NUMBER EXCHANGE

1. Phone stations will exchange 4 numerals, the RS report plus their Zone.

2. C.w. stations will exchange 3 numerals plus the RST report plus their Zone.

3. Stations in Zones 1 through 9 will prefix their Zone number with Zero (.01, etc.).

POINTS

1. Contacts between stations on different continents will count three (3) points.

2. Contacts between stations on the same continent but in the same country, will count one (1) point.

3. Exception: Contacts between stations in the North American continent only will count two (2) points.

4. Contacts between stations in the same country will be permitted for the purpose of obtaining a Zone and/or Country multiplier but no QSO points will be credited.

5. Only one contact per band with the same station will be permitted.

MULTIPLIER

Two types of multipliers will be used.
1. Multiplier of one (1) for each Zone contacted on each band.

2. Multiplier of one (1) for each Country worked on each band.

SCORING

1. The score of each single band will be the sum of the Zone and Country multipliers for that band multiplied by the total contact points on that band.

2. The total all band score will be the sum of Zone and Country multipliers of all bands, multiplied by the sum of the contact points on all bands.

3. Those sending in logs for a single band will be eligible for a single band award only. If a log is sent in for more than one band, to indicate which band is to be judged, otherwise it will be judged as an all band entry.

4. A station will not be eligible for more than one award.

5. Single operator contestants must show a minimum of 12 hours of operating time to be eligible for an award. If a continental operator uses more than one band and wishes to be judged for a specific band, he must show a minimum of 12 hours on that band.

6. Multi-operator stations must show a minimum of 24 hours of operating time to be eligible for an award.

ZONES AND COUNTRIES

The CQ Zone map and the A.R.R.L. and W.A.C. Country lists will be used as standards. The continental boundaries used for W.A.C. will also be recognised. Should any question arise as to the positive location of a station the official definition will be final.

AWARDS

Certificates will be awarded for each section of the contest as follows:

- To the highest scoring single operator station on each single band.
- To the highest scoring single operator station on all bands.
- To the highest scoring multi-operator station in both divisions, single and multi-transmitter.

In each country,
(b) Each call area of the United States.
(c) Each Zone in Australia, Canada and the U.S.S.R.

4. Awards to multi-operator stations will be for all bands.

DISQUALIFICATION

Violation of the rules and regulations pertaining to Amateur Radio in the country of the contestant, or the rules of this contest, or unsportsmanlike conduct, or taking credit for contacts made by another station, or if the sum of the total number of contacts made, will be deemed sufficient cause for disqualification.

LOG INSTRUCTIONS

- In keeping a log, fill in Zone number and country, only the FIRST TIME it is contacted.
- Use a separate sheet for each band and a tally sheet or report form.

3. Keep all times in G.M.T.

4. All contestants are expected to compute their total logs and be checked for contact duplications and proper point credit before they are submitted.

5. Make sure name and address is clearly noted on each entry, PRINT or TYPE.

6. Each contestant must sign a pledge that all rules and regulations have been observed and that the report is a true one.

If official form is not available, use a duplicate form and indicate the size is 8 x 11 in. with 40 contacts to the page.

8. Copies of the Zone Map, log sheets and report forms are available from CQ, address listed below. Send a large self-addressed envelope, with sufficient postage. In the case of overseas stations, C.W. coupons are acceptable. Indicate quantity of sheets required.

DEADLINE

All entries must be post-marked NO LATER than December 1, 1965, for the phone section, and January 1, 1966, for the c.w. section. In remote and sparsely populated areas, it will be more flexible. Send logs directly to CQ World Wide Contest Committee, 14 Vander�enter Avenue, Port Washington, L.I., N.Y. 11050. (Indicate Phone or C.W. Section.)

VK RESULTS IN THE 1964 "CQ" W.W. CONTEST

Phone—Single Operator:

	Band	Total	Score	QSO	Zones	Count
*VK2KM	... 21	16,568	156	17	21	
*VK2APK	... 14	93,096	325	25	34	
VK2WD	... 14	15,458	94	25	34	
VK2AKF	... 14	12,380	101	15	33	
*VK2PZ	... 14	100,085	461	38	37	
VK3TL	... 14	49,362	163	32	61	
VK3HL	... 14	17,667	106	24	39	
VK3XB	... 7	1,282	28	9	7	
VK3KS	... 7	369	20	4	2	

C.W.—Single Operator:

	Band	Total	Score	QSO	Zones	Count
*VK3GW	... A.	323,059	641	67	108	
VK2PV	... A.	58,776	217	38	55	
VK2RA	... A.	2,296	33	13	15	
*VK2APK	... 14	115,982	424	26	71	
VK2AKF	... 14	10,480	38	38	35	
VK3TL	... A.	10,587	66	27	37	
VK3RJ	... 21	9,612	94	15	21	
VK3ADB	... 7	15,666	170	13	16	
VK3XB	... 21	3,144	49	7	7	
VK3KS	... 21	10,459	55	20	22	
VK4EL	... 21	16,297	131	20	22	
*VK4SD	... 14	15,181	114	19	28	
VK5TCA	... 14	87,498	364	37	53	
VK5WC	... 14	12,324	95	22	30	
VK5SK	... 14	1,682	6	1	1	
VK7SM	... A.	62,699	240	38	53	

C.W.—Multi-Operator, Single Transmitter:

*VK5ZP/VK5NO	914,762	1188	91	176
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Note—Certificate winners are indicated by *



VU2'457 DX CONTEST '65

The Amateur Radio Society of India and the Radio Society of Ceylon invite Amateur radio stations in all parts of the world to participate in the second VU2'457 DX Contest. The purpose of this contest is to work as many VU2 and 457 stations as possible during the two week-ends.

The contest periods are: Telephony, October 23 and 24; C.W., October 30 and 31. The transmitting time in each instance is 0600 G.M.T. Saturday, and the finishing time 0600 G.M.T. Sunday.

There shall be three main sections to the Contest: (a) All Transmissions; (b) C.W. Transmissions; (c) SWL—phone and c.w.

All Amateur frequency bands may be used but no cross band operation is permitted. Stations entering both sections must submit separate logs.

The score number will comprise RS or RST plus three figures, which may begin with 001 for the first contact, and which will increase in value by 1 for each successive contact.

Scoring: For DX stations other than VU2/457: Two points for each contact on a specified band with VU2/457 stations and one point for each contact on a specified band with the rest of the world.

Logs and accompanying summary sheets should be sent to: The Radio Society of Ceylon, Contest Committee, P.O. Box 907, Colombo, Ceylon, and should be post-marked not later than November 30, 1965.

Award for DX Stations: Certificates will be awarded to each country (call areas in W.K.J.A., S.M., A.U., V.K., Z.L. etc.) on the following basis: (a) top score using all bands; (b) top score using one band; (c) those with minimum contacts requirements, to be determined by conditions and activity prevailing.

SWL Section: This section is open to all members of any SWL Society in the world. The rules are the same as for the transmitting section but no transmitting station is allowed to enter this section.

To count for points, logs will take the same form as for the transmitting section and should contain date (G.M.T.), call signs of stations contacted, band, serial no sent, serial no received and points. Different logs must be used for each band. (b) The summary sheet should show all bands, name of each (check marks) and address, details of equipment, total score by showing total points for all bands. Sign the declaration that rules and regulations were observed.

Logs and accompanying summary sheets should be sent to: The Radio Society of Ceylon, Contest Committee, P.O. Box 907, Colombo, Ceylon, and should be post-marked not later than November 30, 1965.

Award for DX Stations: Certificates will be awarded to each country (call areas in W.K.J.A., S.M., A.U., V.K., Z.L. etc.) on the following basis: (a) top score using all bands; (b) top score using one band; (c) those with minimum contacts requirements, to be determined by conditions and activity prevailing.

SWL Section: This section is open to all members of any SWL Society in the world. The rules are the same as for the transmitting section but no transmitting station is allowed to enter this section.

To count for points, logs will take the same form as for the transmitting section and should contain date (G.M.T.), call signs of stations contacted, band, serial no sent, serial no received and points. Different logs must be used for each band. (b) The summary sheet should show all bands, name of each (check marks) and address, details of equipment, total score by showing total points for all bands. Sign the declaration that rules and regulations were observed.

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S W L

Sub-Editor: Don Grantley, W1A-L2022.

S.W.L. COMMENT

The outstanding feature of Amateur Radio this month was the R.D. Contest, and to those Amateurs who made this particular contest so interesting for the listeners we extend our thanks. Having been out of the past three or four R.D. contests I can say but little of the vastly improved standard of operating from those taking part. This is to be commended, not only from the view of the transmitting side, but from the point of the listeners taking part. It would be unfair on my part to name any particular transmitting station as being the best on the band, but I saw a lot of points to fine operating from SNO and SNO on phone, and not with the operators at 3RJ, 3BZ, 2EO, 3BX, etc. operating c.w. I just wouldn't dare make a choice of best operator. All I can say to these chaps is thanks fellows, it was a fine contest and we look forward to hearing you all again in the VK-ZL.

From the ranks of the s.w.l. groups come many of the DX men of the future, and these boys will learn their operating habits from what they hear on the air. There is no better place to learn than in a contest, and we look to the operators of today to maintain a high standard for these youngsters to learn from.

CONTENTS

Our next contest will be the VK-ZL DX Contest. This one is our own DX event, and it is held in very high esteem by the DX men throughout the world. I urge as many of our listeners to enter, for there is much to be learned in DX contests, and the radio bands are close your log without a new country. As well as this, entries have been lagging over the past few years, and for the sake of those who spend so much time and energy in preparing this event we should be where possible enter a log. Full details in August "A.R."

NEW SOUTH WALES

Little to hand from this group, and it would seem that there is not a lot of listener activity up here. A letter from Mac Hilliard, L2074, to whom we have added a short note to at Warwick, New South Wales. Like most of us P.M.G. types, Mac has to arise early and needless to say the Collins is usually in action before he leaves for work. S.s.b. sign heard on M2000, 10 m. in the evenings, and W3S, G2S, SL, DL and many other European countries including a number such as UBS and YU on 10 m. New confirmations for him include KR6 and UPE.

From Chas. Abernethy we note that activities have been drastically curtailed due to Mrs. Abernethy's sudden return to the U.S. L2022, another bad trip in the R.D., curtailing listening time to 6½ hours, most listening here has been done in the evenings where some good loggings have been made from stations in the U.S. on 20 metres at about 0700z. Listening to the C.W. segment of 7 Mcs. reveals a host of stations operating in the evenings, mainly from W land and thereabouts but nothing to note on any other band. A new confirmation from VK4TE.

VICTORIA

Firstly, over to Ian Woodman for the official bulletin. The group is having great success with their broadcasting activities who enter the notes for s.w.l.'s on the Sunday program. The experience would prove helpful to these members when they get their tickets. We hope to see all members attending the construction nights on the second Friday of each month, and the general meeting on the last Friday.

Roger Harrison L3188 now with receipt of a card from QASPD has another zone and country confirmed. Roger is another of our chaps who have their L.A.O.C.P., and can be heard on 6 metres, also 375 m. using the call VK3CVA. The listening sign is to report plenty of W's on s.s.b. also an occasional G on 80 metres, the only band available to him at the present time. From Greg Earl an increase in his listings with several new cards take him up closer to the 100 confirmed mark. Keep it up Greg.

ERRATUM AUSTRALIAN S.W.L. CENTURY CLUB AWARD

Your attention is drawn to an error—a vital one—in para. 2.3 of the "Requirements" of this award, published in Sept. "A.R." (page 11). The date should have read "1st January 1946" not "1946."

Para. 2-3 should now read: 2.3. The commencing date for the award is 1st January 1946. All loggings made on or after that date may be included.

SOUTH AUSTRALIA

First note comes from Alan L5067. At 15 years he must be one of our youngest listeners but with 1000 to hand from VK3CVA, VK4, QASPD, KR6, etc. it would seem that Alan is another keen and capable s.w.l. on the way up. From Tim L5067 we note another one of our members sitting for the next L.A.O.C.P. "All the best and hope the No. 13 works out okay."

WESTERN AUSTRALIA

Allan Taylor L6029 has been busy on 20 and 15 metres with PY, EA3, FR7, FBB, PJS, CX9 and XON on the former, and on the latter band he has logged UAI, JHE1, LX1, 9K2, QASPD, KR6, etc. It would seem that Geoff Taylor L6030 on the way up. From Tim L5067 we note another one of our members sitting for the next L.A.O.C.P. "All the best and hope the No. 13 works out okay."

TASMANIA

Our only news from this State comes from Greg Johnson, who gives us a good report on band conditions over there. On 80 metres he logged all VK States except 9 and 0, plus W's, 15, 10 and VY. Plenty of QRN and power line noise. Greg's QRN on this band is not as bad as VY and G1 which is coming in amongst the commercial QRM. 20 metres proved good to the American continent, but poor to Europe, whilst 15 metres was quite stable, but when open Greg says it's terrific mania to W, VE and the Islands. NL on 10 metres.

HERE AND THERE

In preparing these notes it is inevitable that some letters will arrive before the notes have been completed, and it is for this reason that I have included this additional paragraph or so this month. Mails have been delayed due to the transport strike in VK3, consequently the following notes are not in closing time. First in this batch comes from Warwick L3211, who has jumped a few steps up the ladder as far as VK3 is concerned, from W3HGR/V, ZSSWR, HFIMM, YJBHG and QRSSE. The VK3 man is keeping his band but time is still found to explore his pet band, 20 metre s.s.b. segment. Warwick is another of our young chaps who uses his own home-brew rx, and very substantial one at that.

Next we hear from Afton L2126/4, who has just returned from a 7 weeks' trip around the golf country. Two more confirmations, one from TIEP and the second from OA9P, take us to 100 confirmed. A reward for patience—it took Afton 10 years to score a card from Peru. Band conditions at Atherton, where his home station is, were the worst ever for the R.D., in fact, nothing has been heard on any band other than some local s.s.b. on 80.

Back to Chas. Abernethy for a quickie. The VK2 s.w.l. group have bestowed quite an honour on Chas. by reallocating to him the listeners' number L2001, previously held by the late Barney Smythe.

Finally, to close the personal notes for this month we have the results of Eric's L3042 doing over the past few weeks. On 160 he has VK5KCA and SRO. On 80 his loggings consist of a number of J.A.'s, one at 1645z, whilst on 40 m. he has submitted a line which includes VK3, VK4, VK5, VK6, VK7, VK8, VK9, VK10, VK11, VK12, VK13, VK14, VK15, VK16, VK17, VK18, VK19, VK20, VK21, VK22, VK23, VK24, VK25, VK26, VK27, VK28, VK29, VK30, VK31, VK32, VK33, VK34, VK35, VK36, VK37, VK38, VK39, VK40, VK41, VK42, VK43, VK44, VK45, VK46, VK47, VK48, VK49, VK50, VK51, VK52, VK53, VK54, VK55, VK56, VK57, VK58, VK59, VK60, VK61, VK62, VK63, VK64, VK65, VK66, VK67, VK68, VK69, VK70, VK71, VK72, VK73, VK74, VK75, VK76, VK77, VK78, VK79, VK80, VK81, VK82, VK83, VK84, VK85, VK86, VK87, VK88, VK89, VK90, VK91, VK92, VK93, VK94, VK95, VK96, VK97, VK98, VK99, VK100, VK101, VK102, VK103, VK104, VK105, VK106, VK107, VK108, VK109, VK110, VK111, VK112, VK113, VK114, VK115, VK116, VK117, VK118, VK119, VK120, VK121, VK122, VK123, VK124, VK125, VK126, VK127, VK128, VK129, VK130, VK131, VK132, VK133, VK134, VK135, VK136, VK137, VK138, VK139, VK140, VK141, VK142, 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Quite large numbers of Amateurs enjoy the use of net frequency operation, particularly those who operate mobile. In last month's "A.R." I listed all the frequencies known to me. This had raised many queries as to why there are so many different frequencies worked particularly on 6 m.

It is to my way of thinking unfortunate that the DX properties on 6 m cannot be more fully utilised. We have our frequencies or to provide at least one common calling or working frequency right throughout VK. As the mobile operator is around quite a considerable period during the day, the chance of hearing a calling on one frequency, than scattered throughout the band. From a mobile point of view two hands on the wheel is a safe way to drive. The receiver being tuned to one frequency, depends on the operator to concentrate on driving with listening a secondary occupation.

So once again I enter this plea to all those who operate mobiles—act fast. A single calling frequency would be good if not better, than any beacon. This has been proved on dozens of occasions during the last season between VK3, VK4 and to VK8 when dozens of contacts were made by operators on the net frequency heard in Melbourne.

Availability of crystals for a particular frequency are usually the reasons for starting other frequencies and of course is a legitimate reason. However here in VK3 we have an excellent source of low frequency crystals both receiver and transmitter for a very reasonable price—not beyond the average Amateur which provide an excellent beginning to a "National Net Frequency" usable in any State.

ZL will hold a field day, probably on Sunday, Dec. 12, 1960 G.M.T. Dec. 11 to 1200 G.M.T., Dec. 12. All v.h.f. bands will be used but details have not been finalised. During Dec. 12 VK3 Field Day will be held, I believe on the third Sunday.

A visitor to Melbourne and other States last month was Rod 6ZDS. Had the pleasure of meeting him and was interested in v.h.f. activity in VK. Met quite a few Amateurs in Melbourne including 432 Mcs. enthusiasts who provided Rod with quite a few ideas to use on his return and the VK6 users of 432 can look forward to some further effort to increase the records from that direction.

73, 3ZCP.

NEW SOUTH WALES

By the time these notes appear there will be several of the "Mobileer" project 2 metre transceiver/repeater units in use. All details on-site tests the constructional details will be prepared and interested parties will be advised.

The v.h.f. section to the RD. Contest seemed to go over well but it would be hard to judge because of the State section running. This does appear, however, that some system of being able to work a station more than once during the 24 hours would have to be devised to keep stations alive in the State section to the contest was again won by Tony VK2ZTM from Newcastle.

The next major group activity as mentioned last month will be over the New Year weekend on 2 metres. By now most of the amateur state centres have been advised of the contest committee's (VK2) plan for the week-end. Details elsewhere. 73, Tim 2ZTM.

VICTORIA

Radio Reporters 6 metres is still very active at week-ends and although no DX has been worked some signals have been heard which could fall into category.

2 metres is very active and some country stations are worked during the evenings. The most common being 3ZAV (Bendigo) and also 2ZEO (Dandenong). Some Melbourne stations recently heard a JA on 2 metres, in fact, it was Frank JA2M0 maritime mobile, off the east coast of Victoria, who managed to work a most unusual Melbourne station using c.w. both ways as Frank cannot modulate his 2-metre transmitter.

A very strange signal has been heard on 144.3 m in Melbourne over the past few months. The signal was on 144.3 m on 9 or 9.5 m. The signal appears to be emanating from the newest t.v. station in this city. The same t.v. station is VK3 6 metre beacon (same 51.75 Mcs.).

V.H.F. CONTEST/FIELD DAY

The object of this notification is to inform you of a large scale contest/field day to be conducted by the VK4 Group in New South Wales over the New Year holiday period.

It has been found in the past that some very good DX on the 2 metre bands has been worked during the summer. Last New Year a Field event was held during the week-end and more than a dozen different field locations were used. Again this year the Group will be running a 4-day contest and expect that there will be many field stations operating throughout the State. To make it more interesting and to provide even better chances of DX we would like to suggest the Interstate stations could also take part. This could either be organised by the V.h.f. Groups in each State or by groups of operators going to the own location mountain.

The contest will run on a points-per-mile basis and will be run in 4-hour segments. There is of course no need for Interstate operators to do likewise for them to have enough stations operating then the whole event could develop into a nation-wide attempt to work and set DX records.

It has been suggested that the times will be the following:

Saturday, Jan. 1, 1961 to 2100 E.S.T. (0700 to 1100 G.M.T.—1/1/61). Sunday, 2nd Jan., 0500 to 0900 E.S.T. (1900 to 2300 G.M.T.—1/1/61); 1100 to 1500 E.S.T. (0100 to 0500 G.M.T.—1/2/61); 1500 to 1900 E.S.T. (0700 to 1100 G.M.T.—2/1/61). Monday, 3rd Jan., 0500 to 0900 E.S.T. (1900 to 2300 G.M.T.—2/1/61).

On both the Sunday and Monday morning between 0400, 0500 E.S.T. (0000 to 0400 G.M.T.) checks will be made with New Zealand stations. This time has been picked as the sun will be about half-way across the Tasman and some good inversion layers, etc. may exist. At the same time in Australia the same conditions could exist, so both South Australian and Western Australian openings are possible.

The same general use could be made of the 2 metres during the winter period. If you or your own group are interested we would like to hear from you with the following details: Name, address and sign, approximate frequency of operation and expected time of operation. This applies to either home or field stations. The VK4 Group will act as the collection point of operational details and will forward these and other amateur news systems informed. As this is such a large a scale activity it will be impossible to obtain all details. Please start the ball rolling in your area as it is only about 1000 miles away. Please refer to Tim Mills, VK2ZTM, Box 342, P.O. Crows Nest, N.S.W.

—Tim Mills, VK2ZTM.

The August meeting of the VK3 v.h.f. Group was attended by some 50 Amateurs and friends who were really engrossed by John Hickson, of Anodeon, with his talk on transistors. Among the topics he spoke about was the theory of operation and the methods of testing to produce the various types of transistors required today. John also showed some standard circuits used for testing transistors.

The 2 metre fox hunts, which are held on the fourth Wednesday of each month, are becoming more popular than possibly because one of our keen participants has been donating prizes to the winner each evening. The prizes range from a QQ506/40 down to a humongous bag of capacitors, and he only knows the size of the bag. The results are not known. Also it is fast becoming the practice for the fox to put on coffee and biscuits to the hounds after the evening's chase has finished. 73, Cyril 3ZCK.

QUEENSLAND

What has happened to the concept of the term net frequency? In line with the policy of the VK4 v.h.f.'ers, VK4 adopted unofficially net frequencies of 53.525 a.m. and 53.525 f.m. However, as each month passes, the concept of "uniform" net frequencies is increasing. At least count there were at least ten and now VK2 seems to be about to add to the list with a new set!

Some important occurrences last month include the VK4 432 Mc. t.v. reception of TVP in Japan and a band opening to JA band at 7 a.m. on 29/8/60.

During the Remembrance Day Contest at least 20 v.h.f. stations in Brisbane operated and exchanged numbers. Lloyd 4ZLO was heard operating a mobile for TVP, indicating their antenna and his 2 metre signal from the channel's antenna was 88.35 miles away.

Let's hear some comments on net frequencies through these columns. 73, Peter 5ZPL.

SOUTH AUSTRALIA

Activity it would appear within VK5 is confined to mobile operation on the net frequency of 32.042 megacycles. Mobiles heard on the net are respectively, VK5S, ZDX, ZK, ZAA, BO, ZAP, ZGV, Z1S, ZCH, ZK, ZD, ZAG, ZD1, ZEX, ZAJ, ZEP, ZGF, ZOK and ZJH.

No reports of interstate DX are to hand, but reports of Channel 0, Melbourne, are reasonably regular.

An excellent boost to Amateur Radio is the planned television demonstration for the Royal Adelaide Show by George SZEY and Maitland 5A90. Elaborate preparations have been made for two outside telecasts, which will necessitate the pooling of all equipment at their disposal. The majority of their equipment is home-built, no mean feat for the average Amateur.

A fleeting visitor to VK5 has been Rod 6ZDS en route to a scientific conference in VK7 land.

Events that have taken place in recent months that have been unreported are a 6 metre scramble on June 27 with Robert 5ZDX and his team, and the 2 metres and Trevor 5ZTM in close pursuit. July 3 saw a successful 2 metre fox hunt undertaken by nine participating cars. Bob 5ZDX was the eventual winner with Colin 5ZJH and Garry 5ZFH obtaining respective positions.

Before the net for round the VK5s participating in the hunt plan to overhaul Bob's speedometer, as the accuracy of same appears suspicious on such occasions.

July 25 saw a 2 metre scramble eventuate with Edwin 5ZTS the winner with Bob 5ZDX and John 5ZJH obtaining the latter positions. 73, Colin 5ZJH.

TAZMANIA

Activity in VK7 has kept up well during recent months despite the lack of reporting. No interstate DX has been worked since the April 2 metres operation. A section of the 2 metres at Ulverstone was keeping regular skips with VK3. On each night, over a period, signals were heard: if barely readable at night, contact was possible in the early morning. There are still some DXers in the area. 73, D. D.

A remarkable increase in operation has been noticed in the south since the arrival of a number of 53.035 Mc. mobiles. Very seldom does a CQ call go unanswered: even through the day. The 2 metres at Ulverstone and from 5ZAV. Mobile to mobile distances of 20-30 miles are common. Thanks go to 5ZAL for the conversion of these sets.

In the north main activity is on 2 m. Amateurs, amateurs and t.v. are heard. Latrobe and Wynyard there should be a number of new stations for the DX season. During June and July VK3 t.v. signals suggested openings but no contacts resulted.

Stations will be alight on the 432 Mc. re-corder band in early October. The band is a series of contacts with VK2. Kevin 5ZAH is bringing high power equipment. A contact between two "hilltop" stations, 5RL and 5ZAS, 110 miles apart, was recorded—the latter station was on the re-corder.

Rod 6ZDS was a visitor to the A.N.Z.A.S. Conference and gave the August v.h.f. meeting interesting information on VK6 v.h.f. activities. 5ZAO.

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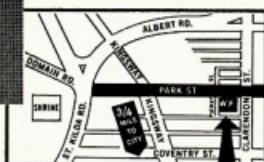
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YOUTH RADIO CLUBS

From two and a half States (we have taxation without representation in VK1) come thought-provoking stories of how an interest in Radio can do something to make the hard lot of the physically handicapped. VK2 enthusiasts looking after the Royal Victorian Institute for the Blind Youth Radio Club have the way. Two members of the club have passed Elementary—Cheng Cheok, aged 18, and Alan Simons, blind, and Alan's son, Simon, aged 14. The presentation of the certificates was made by Cyril Minns, VK3AUM, who is himself blind, while Federal President Max Hulme helped by attending and presenting two sets of certificates from the Royal Institute. Congratulations go to instructors Ron Everett, Bruce Whitehead and Bob Whally.

In VK2 Rex 2YA assures me that moves are on the way to help blind lads, although not nearly as far advanced as in VK3. Here in VK1 we are trying to help the young who is not only blind but has also lost both hands. Many hours of radio theory have been put on tape and he has become a keen S.W.L. and tape-recorder music enthusiast, using his feet. Does anyone have a member of the class of an ARSS for a fair price?

The whole question of participation beyond the s.w.l. stage by the blind (and other handicapped people) needs careful thinking. It should be something like a qualification for s.w.l. and allow anybody to buy a transceiver and turn knobs merely to gossip, but on the other hand the physically handicapped are not to be thought of as inferior citizens and they have proved in many countries that they can experiment in some fields of Electronics.

An interesting development in Y.R.S. is the formation of Postal Groups. Keen youngsters who have no club available can now write to a Postal Group Leader for advice. Mona ZAXX has a group of 10 members, and are advised by Susan 2BSL, Roger 1RD, and John Thyrd, who are recent graduates of Y.R.S. and obviously carrying on the right spirit. Volunteers are needed in VK2 to be godfathers (or godmothers) to electronic orphans. Other Divisions might consider this if they have not already.

It is very pleasing to see the growing awareness of the need for radio clubs and electronic organisations. Many are seeking information and offering (naturally) job preference. Anodeon gave £20 worth of parts to the Institute for the Blind. Ausseas Telecommunications donated a 10. International Correspondence School has donated a programmed course. Several others I know in VK2 have helped in various ways but do not want to be mentioned. They are all aware of a good cause.

Club news from VK3 is interesting. Mr. J. Beasley, of B.W.D. Electronics, lectured to Christian Brothers on the C.R.O. and its many uses in medicine, physics and electronics, and in Welfare. A lecture course may be taken with ten W.A.L. or Matric students. Geelong East Tech. School has 24 members, most about to start Elementary. Greycliffe High (three years in existence) with success in Elementary and Junior, is planning an even bigger open exhibition and is proud of having constructed about 15 pieces of apparatus for the Science Lab. Essendon Grammar goes well with assistance from Bill Allerton. Morwell High back in operation with instructor W. G. Gordon. Vikings in Elementary at Yallourn Tech. by Chris Goddard, C. R. Flood, Peter Suda, L. de Vries and Bernard Murphy. New clubs at Ballarat, Bendigo, and Chancery College (Geelong) Y.R.S. will be in the 3W broadcast on first and third Sundays. Total of clubs in VK3 is now 25. Looks like VK3 has a challenge!

News from Christmas Island indicates that antennae have a chance of outnumbering palm trees. Don Reed 9DR reports that four members attempted A.O.C.P. recently—two fully successful and two others missed one part. They have a native Chinese technician from Singapore who has started a Chinese language course in Radio.

I must mention a local success. Andrew David 1DA has obtained W.T. Operator (Grade 3), and Ross Stirling of Lyneham, also in W.T. Operator (Grade 3). Andrew is the first of T. Operators to gain both W.T.3 and R.T.3.

VK2 news is plentiful as usual, thanks to Jim 2ZC and his members, large numbers of R.T.3 and Junior and will be applying for D.C.A. Trainee Course next year. At Sydney Teachers' College, Mr. Maurice Coleman has started an A.O.C.P. course to attempt it in January. At Australian Radio and Picture Administration, Mr. Roy Clarke reports that the equipment of the late John Moyle has been made available for training purposes with the student teachers who will be going

to New Guinea next year. Kyesmash Sea Scouts had storm damage to their Scout Hall and a power transformer was a casualty from rain but a donation has replaced it. At Kaima High, they are wondering how to take delivery of two 50-ft. telephone poles, but the club is a bit short of money. They expect to have some A.O.C.P. candidates next year. Dordigo High Club has been out of action in sympathy with Mr. Brown, the instructor, ill in hospital. Ryde High now has a club under Mr. Brian Fowler

of the Manual Arts Dept. (formerly at Ibrox Park High, Fort St. High, with instructor Mr. John Weir). The Science Dept., reserves some about to sit for Elementary. Punchbowl Boys' High Club is planning a big exhibit for the School Fete. Marist Brothers (Pawtucket) are still enquiring members. P.S. (to my good friend SPS) can we lure you out of VK3 to make contact with the outer world? What about coming to our VK1 Easter Convention? 73, Ken IKM.



David VK3ZZZ and Kevin VK3ZNQ operating the Swinburne Electronics Society station during "open day."

(Block courtesy "Contagious," Journal of the Swinburne Technical College.)

YOUTH RADIO SCHEME

Members of the Wireless Institute of Australia will have at least a knowledge that such an activity as the Youth Radio Scheme has been inaugurated by direction of the Federal Executive. However, only those directly concerned with the application of the Scheme in various Radio Clubs will be aware of the precise details of aims, organisation and administration. It is hoped that a series of regular insertions in "Amateur Radio" will rectify this situation and make W.I.A. members sufficiently informed on these matters to enable them to assess the advantages of the Youth Radio Scheme as an adjunct to Institute operations.

Accordingly, the following objectives are presented for the benefit of readers:

- To develop in young people an interest in Radio and Electronics, which can be pursued as a vocation or as a hobby throughout life;
- To provide Secondary School students with a hobby activity which will reinforce their school studies in Mathematics and Science;
- To guide into vocations in Radio and Electronics young people who, through participation in Youth Radio Scheme activities, will enter those employment fields with interests and aptitudes already established;
- To assist present and future Club Leaders and Instructors by providing ready-made programmes of theoretical and practical instruction;
- To co-ordinate the activities of present and future Youth Radio Clubs and to promote co-operation and interchange of ideas among Club Leaders;
- To combat juvenile delinquency by providing an absorbing hobby activity which will ensure that members of Youth Radio Clubs are too busy to engage in anti-social acts;
- To co-operate with Schools, Colleges and Youth Movements in the development and fostering of Youth Radio Clubs;
- To give encouragement and recognition to Youth Radio Club members who attain certain specified standards of skill and knowledge of Radio and Electronics;
- To assist the membership of the Wireless Institute of Australia by encouraging former Youth Radio Scheme members to become financial Institute members.

RADIO PROFICIENCY CERTIFICATES

To provide incentives and to give due recognition to Y.R.S. members who demonstrate specified skills and knowledge, the following Radio Proficiency Certificates are available:

- Elementary Radio Certificate,
- Junior Radio Certificate,
- Intermediate Radio Certificate,
- Senior Radio Certificate,
- Advanced Radio Certificate,
- Radio Telegraphy Operators' Certificates (3 grades),
- Wireless Telegraphy Operators' Certificates (3 grades),
- Radio Instructors' Certificates (2 grades).

Further Certificates are contemplated for Morse Code Instructors and Morse Code Examiners, but to date these have not been implemented.

The Radio Proficiency Certificates are available not only to Y.R.S. members but also to Associate Members of the Institute and to financial members of affiliated Adult Radio Clubs. It is felt that many A.O.C.P. candidates being trained by Clubs will have been away from school for a considerable period and may have lost the art of written expression under examination conditions. By presenting themselves for the awards listed above, such Club members will gain valuable experience and so broaden their chances of success at A.O.C.P. level.

Further details of organisation and administration are given in the Form YRS/1—"Administrative Details." Copies are available from Rev. Bro. Kinsella, C. S. School for Blinded Boys (St. Edmund's), Wahroonga, N.S.W. Please send a stamped and addressed envelope together with sixpence in stamps to cover production costs.

New model details of Form YRS/2—"Elementary Radio Certificate Conditions"—will be published for information of "A.R." readers.

STOP PRESS

The August issue of "Break-In," the journal of N.Z.A.R.T., contains full details of a new development—Y.R.S. Radio Schools in New Zealand. A quick perusal reveals close resemblance to the Australian scheme, with a reduction in the number of Radio Proficiency Certificates offered to Y.R.S. (N.Z.A.R.T.) members. All members of the Australian scheme, for sincere good wishes to those associated with the New Zealand effort and hope that some form of inter-scheme co-operation may be developed to stimulate added interest.

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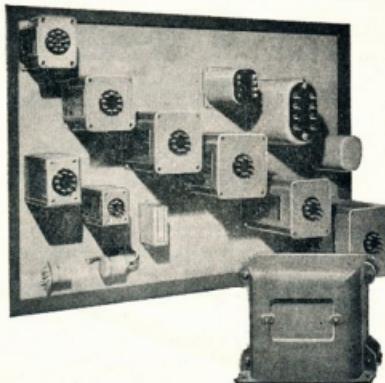
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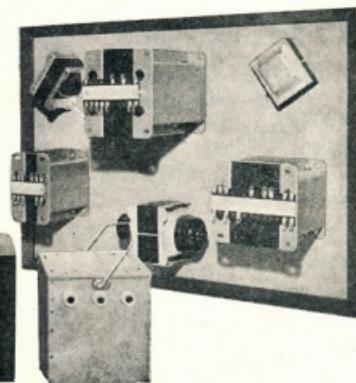
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FEDERAL AND DIVISIONAL MONTHLY NEWS REPORTS

(SEND CORRESPONDENCE DIRECT TO DIVISIONAL REPORTER NAMED AT PARA. END)

FEDERAL QSL BUREAU

The Guayaquil Radio Club has issued the certificate "W.H.C." to worked HC1 which it certifies to the Radio Amateurs who verify contacts with a minimum of five HC districts from HC1 to HC8. There is also a de luxe W.H.C. certificate for those who have worked all eight districts since 1950. The certificate is a fine one, featuring Ecuadorian motifs and down with vignettes of the Island of Puna in the era of the famous Incas, and reveals a vigorous expression of folklores art existing in the Guayaquil Province. Cards should be sent to the Guayaquil Radio Club, P.O. Box 5757, Guayaquil, Ecuador or you may send a certificate of your local Radio Club.

The I.A.R.C. writes: "Thank you for your participation in the I.A.R.C. celebration of the F.U.C. Convention in 1962, especially the L.T.U. handicapped in 1962, we are especially proud of this activity in which so many Amateurs participated." The 1965 I.A.R.C. Convention was held on 19th and 20th September, and included a repeat of the operation of I.A.R.C. stations with calls 4U1UUT through 4U6ITU.

The Central Radio Club of Bulgaria advises that from July 1965 fees are required for issuing of the Bulgarian license for Radio Amateurs as follows: RDS-6 I.R.C.'s, SDS-5 I.R.C.'s.

Any Amateur who contacted the City of Belo in Mozambique between 14th and 22nd August last is entitled to a QSL. Applications with log entries and a QSL for the CR7 station should be sent to: Delegacia do L.R.E.M., P.O. Box No. 1234, Belo, Mozambique. The fact is the matter is that I had gashed my typing finger while helping that well-known fisherman, Frank 2AFO, mend some holes in his net. As a result of this accident my fingers were not well enough as a projectionist at meetings was rather dull when the low quality machine went into reverse and the film caught fire. Except for some minor difficulties with the reel mechanism and the slow low quality machine and some reversed images on the screen, everything went well at the September meeting of the branch when 42 members, associate members and visitors were present to hear some interesting lectures on amateur radio. Those who were present will be pleased to learn that the budget priced tickets sold very quickly at three for 2/-.

In addition, Gordon ZZSG told of the second success in State Viz. R.M. Gontier for the 2Z2R. It is a delight to know that a local member has won this event for the second time and also to be informed that the XYL, Marcia, is buying him a surf bar for the top of the car, as soon as possible.

But as far as presents go, almost all the chaps enjoyed Father's Day and some were given most useful gifts—s22s, beat rotators, brooms—and one member was presented with a small wooden chair and from outside the family. It was a large cork stopper inscribed "to be used to refloat the Admiral's Barge which was scuppered." And while near the water you may be lucky enough if at Ternate to see a local fisherman filleting fishing rods, nearly new and neatly wrapped with wire. Just the thing for catching those rare DX fish I am told, the owner having replaced them with some new ones from the U.S.A. Or, by journeying northwards towards Wangko, may chance to see the Venetian Blind Dipole, strung between two poles quite near the house of Paddy 2AXU, who by the way, was at the meeting last month to meet the boys. His radio committee had not met before, but he is saving his hard-earned pennies which he hopes to convert directly to cents on February 14, if the bank does not find our first. He reckons about 100 to do this on the strength of well-known hostels in Conde's Hill at the invitation of the landlord, who says he'll be glad to do business at the new rate of exchange. It is a pity he has to have the chart to help him with the conversions.

Ray Jones VK3RJ, Manager.

NEW SOUTH WALES

This month is the start of the convention season in VK2 with both the Hunter Branch and South-West Zones over the long weekend. This will be followed in a few weeks by the Hawkesbury at Wollombi and then the Blue Mountains at Section during November. In late November the Division is intending to hold a family picnic day. Details later.

The general meeting for October will be on the 22nd with a lecture at W.I.C. by Mr. Allan Morris from D.C.A., and his subject will be Magnetic Amplifiers. This will be followed on November 20th with a lecture by Hans Ruckert, 2AOU, entitled "How I Built My s.s.b. Transmitter."

The Federal Constitution Committee has been meeting regularly. Some repairs and maintenance has been carried out to the front section of Wireless Institute Centre over the last few weeks.

The Dural committee reports that some new members have been added. Some W.L.C.E.N.

exercises will take place soon and will make use of the Channel B f.m. unit installed at VK3WL. John ZIG has moved to the west and the work he started on compiling a list of those interested in vehicle call letter plates will be carried on by John 2ZJD, C/o. Wireless Institute Centre.

The disposal section of the Division is still adding to its range of new equipment and they are pleased to note the increasing interest being shown by both country and interstate Amateurs. A small catalogue covering the range of stock items is available and this may be had by writing to or enclosing a s.a.s.b. stamped addressed envelope to W.I.N.A.R., C/o. Box 342, P.O. Crows Nest, or to the Disposal Section, Wireless Institute Centre, Crows Nest.

The second sub-edition of Amateur Guide material will be available in the month of November and can be used by those who already have the first part. This section will cost 6/- post paid. Address inquiries to Amateur Guide, Wireless Institute Centre, Crows Nest, N.S.W. 2065, Australia.

Further stocks of the first part should be available next month (10/- post paid) but you will be advised next month.

73, Tim ZZTM.

HUNTER BRANCH

Contrary to popular belief, the rumour that the return of the semi-annual service of the notes for two months was due to me having collided with a fast-moving post while driving at 15 m.p.h. under the Cardiff subway while in contact with 2Z2R is absolutely and entirely untrue. The fact is the matter is that I had gashed my typing finger while helping that well-known fisherman, Frank 2AFO, mend some holes in his net. As a result of this accident my fingers were not well enough as a projectionist at meetings was rather dull when the low quality machine went into reverse and the film caught fire. Except for some minor difficulties with the reel mechanism and the slow low quality machine and some reversed images on the screen, everything went well at the September meeting of the branch when 42 members, associate members and visitors were present to hear some interesting lectures on amateur radio. Those who were present will be pleased to learn that the budget priced tickets sold very quickly at three for 2/-.

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SILENT KEY

It is with deep regret that we record the passing of:

VK3AWS—R. R. C. Stevenson.
VK2WJ—W. J. Peell.

On the v.h.f. front, great things are afoot, what with s.s.b. on two metres and all. Even Bill 2ZK has taken enough time off from the test tube and furnace to get a receiver going on this band. And that's not all—he can hear 2AWX—and he rejoices, which is not the most usual reaction, that others display. I mean, being on holiday doesn't stop several members from forgoing a few metres to go on their holidays and get away from it all. But they haven't forgotten their friends and Kev 2ZKW is reputed to be buying the harbour bridge to bring his for Bill 2ZK to use to see his friends. Won't he be pleased. Bill 2ZWM is at Teagardens and has taken the rig with him while John ZZG is about to start his annual siesta—where I cannot tell.

Two bob Maschette had a strange thing happen to him one day while flying his Sabre down over the Hunter. He had the good sense to land and partake of the refreshments offering. A large man with a blue pencil behind his ear walked up to the same bar with a crocodile on a string walking beside. Gordon ZZSG did this after a few beers at this hotel. The dispenser of beverages replied that there was no discrimination at his establishment whereupon the large man with the blue pencil and a crocodile replied, "Good for you, I'll be a spooner and my friend here wants an Editor."

From latest reports received there are two well-known chaps lining up for the October exam. This will be a good thing and perhaps they'll present their black patches and cork legs to the branch members in the near future. Several stories of winning awards in the v.h.f. field, the v.h.f. specialist from Bourough has entered another field, pearl-diving for the army. Some of the scores put up in the R.D. contest were rather remarkable—one YL operator worked 100 contacts in 10 hours and had eight contacts. After that he connected the serial. At the club, Allen Legge worked very hard and ran up a good score but the supply of midnight oil was pretty low at the end. It is hoped that if Bill 2ZK may have come in first about this area with 2AKX a remarkable last again.

Les 2RJ is now O.C.w.l.'s in the Muswellbrook territory and hopes to do some interesting obituaries. The 2Z2R is still a biggie after finding one of the feeders in the western paddock while Merv 2MW is still a mighty signal on s.s.b. I hope you won't forget the November meeting when President Frank will be here. A few more details will be given by one of Mr. Mullard's men, the first of a series of three lectures on the same core subject. The time and date are 8 p.m. on Friday, 11 November, in Room 1, Clegg Building, Newcastle Tech. Please, you guys, no fire-works. See you. 73, 2AKX.

CENTRAL COAST AMATEUR RADIO CLUB

The last meeting of the Central Coast Amateurs Radio Club will be held on Friday, August 28, at the School of Arts, Gosford. Twenty-six members turned up on a rather cold night to hear a talk on the construction and use of capacitors in radio by Roy Robinson, of Duxton. His talk was instructive and interesting and plenty of questions were fielded at the conclusion. It is surprising that this component can be smaller than a threepence, or taller than a man and still perform the same job. He said that much information were the most reliable. He said that components last longer if used continuously and, therefore, did not recommend lovely trips overseas for two or three months as on your return the trip to get little s.s.b. give trouble.

Phil Leveson, 2TIX, moved a vote of thanks for Roy and mentioned a very vivid memory of having received a "belt" from some old capacitors which had been lying on a dusty shelf for months—the occasion happening years ago.

There was some discussion on members joining the 146 net which is in general favour, and more will be said about this later. All members realise the importance of this net and its possibilities during a civil defence emergency.

A recent visitor to the district was Clive Cook, 4CC, and son Peter. They were having a very nice time mobile and met several of the local Amateurs.

Lindsay Douglas, 2ON, leaves in a few days' time for a two months' business trip to Canada, England and the U.S. During his

free time he hopes to meet some of the Amateurs he has talked with on the air. Half your luck, Lindsay.

As usual, I would add that visitors are welcome at the C.A.R.C. meetings which are held at 7.30 p.m. on the third Friday of each month at the School of Arts, Gosford. This is located near the Post Office, 73, 2AXS.

VICTORIA

Council Meeting, 24/8/65—Items considered included the Annual Dinner on 5th November. The menu submitted was approved and the cost of £2/12/6 per head was approved.

The insurance cover for W.I.C.E.N. operators was discussed and it was agreed to accept the quote of an insurance company to increase the benefit to the most in line with the new Workers' Compensation Act.

It was agreed that the Collins receiver be overhauled, as its performance has not been up to standard for some time.

Doug Pinson has gone overseas for 12 months and for the last 6 months has been receiving course papers, but if anybody cares to relieve him of this task it would be greatly appreciated.

The next Federal Convention is to be held in Brisbane. The Eastern Council gave a very thoughtful consideration to the desirability of sending an observer, but did not reach a decision, as it was felt this decision could be left for a committee of the Eastern Council to make.

It was decided not to hold a State Convention this year. Normally it is held in the first half of the year, but with the last Federal Convention in Melbourne it was considered that too much work would befall the "F.C." if we tried to hold two conventions close together.

The last half of the year is taken up with Jamborees, W.I.C.E.N. exercises, Zone Conventions, etc., which will keep us fully occupied, hence no State Convention this year.

The tape recorder used for Sunday night broadcasts has been condemned by all who have had to use it, and by many others who have not. It is a good piece of equipment, but it has been decided to look for a suitable replacement, not easy with all the r.f. that floats around at 3W1.

The Disposals Committee has built up a large stock and will shortly arrange a "hand out".

September General Meeting was held 1/9/65 to a packed house (5PS please note). The minutes of the last meeting were read. Apologies, N.I. General Meeting, N.I. in fact, nil anything. Nobody wished to waste time on such mundane matters, with such an interesting lecture in the offing. The meeting was adjourned to Mr. Keith Gibb from Defence Standards Laboratories to speak to us on the subject of Lasers. Judging by the large number of questions asked everybody thoroughly enjoyed the lecture. I would like to add that the questions asked were good, listen to those asked by our younger members. The things these young fellows know today will really astound you.

Next month, Don Seemans will tell us of his tour of duty in Antarctica, and we hope to see you there.

For November we hope to have a representative from one of the fire-fighting authorities to speak on measures to be taken for self preservation in emergencies in which W.I.C.E.N. personnel could be involved. It is hoped that all W.I.C.E.N. operators will come along.

MOORABbin AND DISTRICT RADIO CLUB

The Club's notes for last month were omitted from "A.R." due to your dose of winter "flu". I should have taken to the wanderings of Al SLC and Bob 3SK, who both migrated to VK4 to observe the rest of the world. Apparently the winter has also taken tolls of our remaining members, why, there was even a very strong move to arrange for adequate heating in the clubroom at the depth of the winter

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OBITUARY

W. J. (John) PEELL, VK3WJ

It is with the sincerest regret that the VK3 Division advises of the passing on Monday, 30th August, of John Peell, VK3WJ.

John was a pioneer member of the W.I.A. (N.S.W.) and had devoted a life-time to radio communications, both as a private operator and as a soldier. He commenced his career with A.W.A. as a marine radio officer in 1922, and served at sea for many years.

In 1932 he transferred ashore to the Coastal Radio Service and ultimately became Supervisor of Technical in Charge of the receiving equipment at Sydney Radio, La Perouse. When the new Overseas Receiving Centre for O.T.C. (Aust.) was established at Bringelly in 1934, John was the logical choice for its first Station Manager.

Despite his responsibilities in managing the largest and most complex receiving station in the Commonwealth, John still found the time and enthusiasm to continue as an active Amateur, both on h.f. and v.h.f. and was keen "Moondyne". He was the happy knock about getting along with his staff and succeeded in making Bringelly a contested station.

John will be sadly missed by all his many friends in VK3 and our sincere sympathy is extended to Mrs. Peell and his bereaved relatives.

months. It is admitted that it gets mighty cool some nights, but you should hear our heated arguments! It is enough to make anyone's blood run hot, must be those French films.

My co-editors this month consist of Ken 3ZNJ, David 3ZOP with the support of Trevor 3ZTJ, from the other side of the town. Some time ago I decided to go into business, managed to get down to business, managed to have a QSO with George 3XJ, George, but nice to have that sort of result. Might make a bit of a break statement here. I have not worked you before Val 3OT? It is a couple of months now since I have asked Val how many stations he has worked on f.m.

Now, a bit of DX. Should say DX-pedition to VK3. Ken 3ZNJ recently visited VK4 and VK5. He was there about a week on top of the Blue Mountains where VK3s were granted the rare opportunity to work 3ZNJ on 2 f.m. It was a case of queue up, or shut up. It was a rare night, with the moon indeed, enjoying the hospitality of VK3, and a fox hunt ended up on the other side of the town, the one with the coat hanger, but the terrible story goes, someone tampered with the lesson, and with some difficulty, the exercise, exercise, is now in VK3, operating under the call of 2ZQM. Another old member of the club is Jock (was 3A9F), now operating under the call of 1LJF.

A big auction was recently organised over in 3ZOP territory. A lot of useful junk was sold to assist 3ZOP to get his new car. Now let's see, how many more months until November, and the ball and chain for 3ZOP. Peter 3ZPC has been rather quiet the last couple of months, and I have not even been heard at all. Lindsay 3ZNS is in bed with the measles. Hal 3ZOO appears to be the most active of club members, on 2 f.m. and a.m. Heard some mention that a 6 metre converter

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may be on the drawing board in the shack of 3ZOO. Adrian 3ZCM is active on 6 metres. And what has happened to Peter 3APD? Col 3ZK has been in the news recently with a recently built parapadotor. Stan 3ZE is still amongst the big time, working DX with the s.a.b. rig. John 3ZCR is now back on 2 a.m., but we are not certain if it is the same gear or not. Bob 3ZD has now graduated to the d.e. ranks—the new call is 3AXE. Ted 3JS is quite working on a 2 a.m. rig and it is expected that the 3JS call may shortly be replaced by 3BZD.

Morton 3ANG is active on 2 f.m. and 2 a.m. and worked 3ZNJ the other night, big time, fully 400 yards. Ron 3RN is another club member active on 2 f.m. Fred 3ARK has decided to leave his hobby to go into a superde luxe home-brew receiver. That is, after the present project is completed. Fred should soon be joining the ranks of the quakers with a sideband rig; it is believed that it is just a matter of time. Stan 3ZK, the old 3ZK, is still heard occasionally on the late late show on 2 a.m. and is presently examining the finer points of transmitters. Peter 3MX has been heard on 20 metres. Ken 3AJ is still active on 20 metres, and the end of the band with s.a.b. was heard knocking them over on the R.D. Contest until some cad jumped his frequency. Harold 3EW has been assembling some rotating mechanism for a quad which he intends to build and then attack the DX.

The W.I.C.E.N. exercise, held during September, saw approximately 20 club members participating, operating both h.f. and v.h.f.

Club meetings during the past few months have been actively supported. The August meeting was an introduction to decimal currency with a talk by Peter 3ZP on the change to decimal on 14th February, 1966, and the problems associated with this change. After the talk concluded there was an auction of surplus gear donated by 3ZOP, the difference being paid, bidding being done in decimal currency. From the spirited bidding it appeared members know the value of an "oxford scholar," you just try them and see if it is possible to buy one in white all white elephant nights will be dealt with in decimal currency. So beware the unwary.

Over the last couple of months, the club has continued to run its monthly Social Evenings. These have been held at Kevin's 3ARD and Ron's 3BZK home. October will see the start of the general monthly meeting will be held on Friday, 15th October, at the Club Room, Black Rock. Visitors are always welcome, and all information can be obtained from Harold 3AFG.

The club will be arranging a display of equipment at the Sandringham Technical School on Saturday, 2nd October, and will be operating portable on the h.f. bands from 10 a.m. to 4 p.m. The club will be participating in the Jamboree-on-the-Air, to be held 16/17th October, once again working portable on all bands and will be looking for contacts.

To complete the month, a social will be held at the home of Ken 3ACS on Saturday, 30th October. 73, 3XK.

QUEENSLAND

The September meeting of the Queensland Division of the Wireless Institute of Australia was held in the Social Services Rooms, Berwick St., Valley, Brisbane, on Thursday night, 2nd Sept., with a good attendance of Councillors, with a large number of visitors.

A new duplicating machine has been acquired and this will improve and facilitate the issuing of our Official Bulletin, "QTC". Considerable savings in printing bills will also result, and letters to members can be produced very efficiently and cheaply.

Don 4ZB showed the Pennants secured for 1965 Sunshine, State Contest. These will be presented to the Brisbane winners 4VX and 4ZLO at the September General meeting.

Pat 4PJ reported on the W.I.C.E.N. exercise held on Sunday, August 26. Things are shaping well and further exercises are planned for the near future to have everything running smoothly.

Laurie 4ZGL will be away for a month on holidays and our worthy Secretary (Peter 4ZPL) has undertaken to attend to the public interests of the club in his absence.

Disposals equipment consisting of V.F.M. receivers and transmitters for f.m. were bid for and winners will be notified in "QTC". There are a few further receivers and transmitters available for ballot next month, and there is some other interesting gear in the offering.

Queensland Division members and visitors from Interstate are reminded that they are cordially invited to attend any or all of our

Council meetings, to join in discussion and see their Council at work.

Activity in VK4 is has increased somewhat the last month, quite a few new commercial transmitters are on the air and several of the real Amateurs have completed their own gear. Quite a deal of activity on 80 and 40 these evenings, with a bit of DX breaking through on now and again. Twenty metres starting to open again, but rarely goes a few nights, and the week-end of 3rd and 4th Sept. saw a real full band most times.

About half a dozen of the DX boys have them in. At 100% with new beams, new bands, and new ways of working all set to knock over the DX as it appears.

The 10 metre net on Wednesday nights starting at about 8.30 p.m. on 28.6 Mcs. is a really lively sewing circle. Interstate boys are asked to water their frequency each week-end and when the bands open again, the boys break in and join the club. This should not be hard, but a couple of fellows in the net forgot to take their finger off the p.t.t. switch, hi.

73, Reg. 4VX.

THE IPSWICH AND DISTRICT RADIO CLUB.

This is a very busy body, they have their own piece of land, have it cleared, and are now planning how they can finance a good radio shack for their official club station, VK4IO. VK4IO also takes call-backs on Sunday mornings after the VK4WI news broadcast.

BUNDABERG AMATEUR RADIO CLUB

W.I.C.E.N. Activitier: The W.I.C.E.N. Group of the club held a field day at Bingers Weir early last month. This was the first outing for the group and numerous teething troubles presented themselves. With this experience behind them another W.I.C.E.N. exercise is to be held in October and November. The members of the group are keeping the soldering irons hot this week in an endeavour to get an 80 metre signal (a.m.) out from Coona 40 and 6 metres.

The group consists of Rusty 4JM, Joscelyn 4JZ, Bill 4ZWS, Roy 4ZWR and John 4XC. The XYLs and harmonies are taken along on these outings and from all reports a good racing and party day is enjoyed by all, in fact, they could be the proving grounds for future club field days.

R.D. Contest: A quick muster reveals that a large seven leg will be presented to the judges for members of the club. There is big improvement on previous years, but there are still a few who could make that little extra effort—maybe next year our effort will be a maximum performance.

Prize Draw: This third Wednesday of each month is practical night for club members at the clubrooms. The present project is a 6 metre fix for the club.

Visitors to our QTH this month were Peter 4PZ, 4ZWS and 4ZM with his XYL and harmonies at Bargara, and a meeting of a few of our club members. Les 4JX also passed through on holidays on his way up north. Let us say—President of our club, always drops in to say hello when around our QTH. His mobile rig 4ZB-2 is usually given us plenty of warning of his whereabouts.

Six Metre Hook-up: This hook-up takes place two or three nights weekly with 4ZWS, 4ZM, 4ZM, 4ZM and 4JX on the net. This seems to be a popular catch-hook-up, and it wouldn't surprise to hear more on this band in the very near future.

A few 20 metre antennas are showing up around the place. Les 4FC is away on 20 and going very well with it, too. Rusty 4JM has plans well in hand for a Quad on 20 to replace his present vertical.

TOWNSVILLE AND DISTRICT

Well, the R.D. Contest has again come and gone. I thought that this year there seemed to be not so much interest taken as formerly. I think there was so many on the bands, maybe it was the conditions that prevented me hearing them. Only the final scores will show the true facts. Very glad to see that Charlie 4BZ has the four century mark with his 10000. He certainly puts in a lot of time at this special Contest.

This time I received my "A.R." before typ-ing the notes. Do not know whether it was the Postal Dept. or the W.I.A. chapter I have to thank for this.

Very pleased to say that I also looked into the crystal ball like Fan-Sy, only that mine was clear and not clouded. I see that the previous invitation to "drop in" for a "cuppa" with the XYL Club in Sydney has been well received, as he may have got the call signs mixed. But take a tip never get your girls' names mixed (see column 3, page 23). Knowing Muriel 2AIA will have a great laugh, only hope that Marc 2CM will really invite him to carry the bags. What say you Verle 2MHR.

The foregoing only shows that I read all the correspondents' notes as that way I get to know just where the chaps are that I have not written for many a long day.

The old Amateurs still seem to be on the air like the old times, apparently waiting for the conditions to really open up. I know that in my locality I cannot hear them unless their beams, quad, etc., are in my direction. A few type of DXers I know is about to leave on his annual holiday to Brisbane. This time he hopes to attend the monthly meeting and meet as many of the boys as possible.

A few of the "Z" boys are going to try and master the key to get the full ticket, as there is practically no activity on their bands of 6 and 2 metres. So here is hoping that they soon get the right to be on the DX bands.

Still wonder if the par in my notes, August "A.R." will bear fruit and we can work third party to the lads in the Armed Services overseas. What about some of you chaps in the north dropping me a line or two about what is doing—1470 and 15 Mc. does not seem to favour short haul contacts, as I never hear any of you on the air. 73, Bob 4RW.

SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division for August was held in the clubrooms to a very representative gathering of members and visitors and took the form of a display of members' home-constructed gear. The meeting opened some 20 minutes late, the reason for this being the members who attended the first hour or so was taken up with the normal business of the Division, including a discussion on the question of the membership fees being raised, and also a discussion on the matter of what would be decided for commercial membership. Although there was a lot of fencing and sparring going on over the increased fees question, it was obvious from the start that the present belief that an increase was inevitable, and that the members were justified, and so finally it was passed unanimously, bar one, and the same went for the community members' boundary.

The display and description of members' gear throughout the year and while I must admit it always gives me a terrible feeling of inferiority to say so, the gear displayed this year reached an all-time high, both in quality and quantity, so much so that it is becoming increasingly difficult for the Amateur gear from the professional which is all the go to get a hearing.

Prize Draw: This third Wednesday of each month is practical night for club members at the clubrooms. The present project is a 6 metre fix for the club.

Visitors to our QTH this month were Peter 4PZ, 4ZWS and 4ZM with his XYL and harmonies at Bargara, and a meeting of a few of our club members. Les 4JX also passed through on holidays on his way up north.

Let us say—President of our club, always drops in to say hello when around our QTH. His mobile rig 4ZB-2 is usually given us plenty of warning of his whereabouts.

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A few 20 metre antennas are showing up around the place. Les 4FC is away on 20 and going very well with it, too. Rusty 4JM has plans well in hand for a Quad on 20 to replace his present vertical.

The meeting concluded with much haste and speed, at the witching hour of 11 p.m. with the chair-taker's Australian dog barking up the stairs two or three times and the members bounding down the stairs four at a time—managed six steps once—and everybody quite unanimous that a good time had been had by all.

Speaking personally, I hate these nights. I have said it before, and I will probably say it again. After viewing the gear displayed, with its professional finish, to say nothing of the description given by the builder, I always wonder if my homemade work is terrifically inferior, complex, and it takes me almost a week to stop myself from tearing down my Amateur licence from the shack wall and jumping on it. My only compensation being that at least I am honest enough to admit it, if only to myself.

John 5LV came up to me at the meeting and gave me a message from a certain s.s.b. identity who resides at Broken Hill. I refuse to give his name because I know he only sends such messages to me in the hope that I will be annoyed and embarrassed. You and your s.s.b.—I hope your mechanical filters are blocked up and bursts.

Bob 5ZDX, in describing his s.s.b. rig for 6 mc, threw out an open offer to lend the said rig to all and sundry with the view that it is not in use. This is up to you s.s.b. Only goes to show what a hard battle to lend an a.m. rig to anybody. What chance have I got?

Notice in "QST" for July the beaming face of my old sparring partner, none other than Freddie SFH, who had been visiting A.R.R.L. Headquarters. Freddie used to be OELFH in 1938, and his main claim to fame in VK5 was that he can beam up to the Adelaide foothills with consistent codies of signal strength in the right direction for DX. Can't understand it. Fred must have had a mental blackout just before he left for overseas, or was it the bags he carried that would have let me carry his bags home again?

Jack SLR has at last managed to get his new transmitter to declare its allegiance to Compo 5EF. However, all is not yet lost, he still is firmly sticking to me on the other bands, owing allegiance to Compo on 7 Mcs. but decides to turn his back on me elsewhere. Jack is by no means perturbed and confidently boasts that it is only a matter of time when I go overboard, but never fear, I still have a couple of sleeves up my trick!

With the 5LD Compo has again gone and gone, and once again it was the usual success from all points of view. At any time, since its inception, I have only tried for the nominating five contacts, just to be a multiplier, but this time I did it to my giddy self a mile for the first time due to my having a head cold, and a decided disinclination to leave the warmth of my couch of virtue. However, realising that my non-appearance on the air would bring great cheer to the heads of a number of contestants, I again could be quite at ease with evident relish that the "old So-and-So" was at last showing signs of packing up. I fought back gallantly and dragged my weary body up to the shack and managed to get my usual number of contacts for 1965. I only went on 7 Mcs., as usual, and thought the conditions around 3 p.m. were well down on previous years, so much so that on one world one VK5 and the rest were VK5 and so little activity.

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- ★ Automatic carrier level adjustment on C.W. and A.M.
- ★ Receiver off-set tuning (10 Kc. bandspread) without altering transmit frequency.
- ★ Front panel selected Standby - VOX - or P.T.T. operation.
- ★ V.F.O. and I.F. circuit boards, preassembled crystal lattice filter.
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- ★ Rapid band tuning 6:1 : Vernier bandspread 30:1.
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- ★ Smart professional styling.

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you had a good trip home. Rod, and enjoyed your all too short stay in VK7. Maybe we'll see you again in the next contest, or at least work you on 6 metres. I had better get a better aerial first though (hi).

73, Geoff Z2AS.

NORTH-WEST ZONE

Well, chaps, by the time this goes to press (unless the Editor decides otherwise) you will all have known how each of you had fared in the R.D. Contest. All we can say at this stage is that we hope that everyone put in their best, and tried their best. I for one went flat out for 24 hours—apart from a horrifying experience at approximately ten minutes past six; or I should say 0810 G.M.T. Saturday, when the antenna and receiver display went to function, by which I am pleased to relate I managed to loosen up by using ordinary engine oil, not having any Servisol handy—I thought the R.D. was as good as ever. One thing I experienced this month is that the lack of sending heterodynes, one usually has to contend with—attributed no doubt to the greatly increased population of a.s.b. participants. Also being in the fortunate position of having a receiver one didn't have to perform the octopus act of using a dozen arms to go from receive to transmit.

However, in spite of all this, we, in the North-West didn't do as well as expected, attributed to unforeseen circumstances as I am about to relate.

Firstly, there was the woeful tale of Sam TSM who imagined the scene—Sunday afternoon, time approximately 1 p.m.—the a.c. power goes off and did not come on again until 4:30 p.m.!

Then there was the unfortunate clash of events that befell Ken 7AI—now Ken usually wins the N.W. zone score but unfortunately had to forego any thought of Ham radio that week-end on account of his final flying exam. And poor Ken, let's just cross our fingers and wait for the rest of luck to come.

Another sad story was that of Ken TKH. Now as I mentioned in last month's notes, Ken used a radio controlled golf ball very successfully to qualify for the semi-final in the golf championships—however, something went amiss with the gyro-operated s.f. derived putting mechanics or something—and sadly to relate that gold cup won't be standing on his mantelpiece, and to make matters worse, nor will the phone connection to his shack stand for 48 hours, say, Ken, let's see you back on the air next year with a vengeance.

I haven't heard very much of Max TMX lately, the bands, but I did happen to run into the old boy the other day at his place of employment. After dragging me into a

corner and telling me the latest joke from the stock exchange, he then said that his interest in Ham radio had not diminished but merely that his attentions at the moment were wholly directed on his stereo hi fi amplifier system.

George DX, as you all know by now has bought a commercial a.s.b. transceiver and a very nice looking bird it is too. I bet you never even thought that one day a remark you made once would ever apply to yourself, George. The new radio parts are s.o. of correspondence to the editor of "A.R." in December 1961 notes!! Anyway tycoon or not I'm with you all the way!!

Associate Ian Ellings has built himself a nice little receiver which he uses ahead of an ordinary mantel set. I haven't had the opportunity of seeing it yet Ian, so what about bringing it along to the next social meeting and showing the boys.

Reg Polden has also been bitten by the contest bug and thinks it's time to start autorised rx. It won't be long now Reg before we will be able to hear all that rare DX.

Ray Z2RS has changed his vehicle—from beetle to 4-wheel drive. I believe there are 135 willing horses under the bonnet. Now that you have a vehicle, you will be called a tycoon, it only a matter of getting your morse and then you will be all set to go mobile.

Looks like there is yet another convert to a.s.b.—none other than that master of the key, T.M. I believe Sam with his 20 w. has over 200 contributions to the a.s.b. cause to his credit. I would hate to think of the chaos down at the QSL bureau when you pound the key using 300 watts of a.c. or 400 watts of s.s.b. Sam!

Don't forget the Jamboree-of-the-Air on the 18th of the month—see your local Scout Group and give the lads your support.

TJ. David TMS.

HAMADS

Minimum 5/-, for thirty words.

Extra words, 2d. each.

Advertisements under this heading will be accepted only from Amateurs and S.W.L.s. The Publishers reserve the right to reject any advertising which, in their opinion, is of a commercial nature. Copy must be received at F.O. Box 12, East Melbourne, C.S. Vic. by 8th of the month and remittance should accompany the advertisement.

FOR SALE: Type 3 Mark 2 Tx Rx with P/S, Mod. and Speaker, all self-contained, in carrying case 19 x 13 x 10 in. deep and with 4 coils, 10 xtals in 7 Mcs. and 7 xtals in 3.5 Mcs. bands, battery and a.c. cables, Morse key and xtal mike, £35 complete. Geloso v.f.o. in metal case with separate P/S matched for above, £10. BC Car Radio and P.A. system with 6V6 P/B output, speaker and 12 volt generator P/S, £12 (has facility for external mike). X/M P/S—2 on one chassis (a) 550 volt (b) 400 volt, well filtered, £5. 144 Mcs. 10 element Yagi Ant as per v.h.f. Handbook, complete with 70 foot 300 ohm open wire feeder, £3/10/- "Z" match Ant coupler, in metal case, £1. 5 ft. 6 in. P.M.G. type Rack, £1. Remington Typewriter, in good condition, £12. And lots of other items, condensers, coils, relays, etc. No reasonable offer refused. Want to Buy: 12 v. Battery Charger. A. W. Chandler, VK3LIC, 1536 High St., Glen Iris, Vic. (50-2556).

FOR SALE: 150 watt 80 to 10 metre a.m. transmitter; 400 w. s.s.b. with 80 and 20 m. s.s.b. exciter. Comprising 10 units. Double diode shelf rack, 813 amplifier, class C, class AB2, regulated screen, shielded case. Geloso v.f.o., 6146 exciter, 80 to 10 m. 150 watt modulator class B 811's, 2A3's driver. W2EWL phasing exciter, 2 band (no case). 5 power supplies, relay control, final and modulator supplies,

hi-cap filter, relay power supply. All housed in crackle cabinets. New parts used throughout when built, £125. Woden modulation transformer UM3, 120 watt, brand new in box, £10. Ferguson vibrator transformers VT106, 6 volt/300 v. 75 mA., as new, 10/- each. D. V. Scott, VK3DY, Johnston St., Maffra, Victoria.

LAFAYETTE HE80 Comm. Rec. tubes 550 Kc. to 30 Mc. and 48 to 54 Mc., a.m., f.m., s.s.b., perfect condition, complete with instruction book. £79. VK3AOK, P.O. Box 60, Mt. Waverley, Vic. (560-9188).

NEW Swan SW350, still in factory sealed carton, with set of new 240v. a.c. power supply components. £250 the lot. VK2ID, Fred Adams, Box 9, P.O. Wentworthville, N.S.W.

PYE IIIA 10 Watt a.m. Mobile, modified for 53.032 Mc., 12 volts, transistor power supply, £25. VK3AOK, P.O. Box 60, Mt. Waverley, Vic. (560-9188).

SELL: Collins S Line, as new. Complete s.s.b. Ham Station with power supply, mic. and spkr. Reasonable offer for quick sale. VK2BRW, 44-7701.

SELL: Hallicrafters SX28 Revr., 240v. a.c., 100 Kc. Calibrator, Product Detector, Fast-slow a.v.c., voltage regulated, mods. professional, complete instruction book; f.b. s.s.b. revr., £65. AR88LF Rcvr., 74-550 Kc. and 15-31 Mc., S Meter, spare tubes, recently overhauled and aligned, panel needs redressing otherwise f.b. performer, £45. Central Electronics 10B s.s.b. Exciter, 10 w. p.e.p., 160-10 Mx, 9 Mc. phasing unit, 5 Mc. remote v.f.o., some Xtal, spare set audio xformers (cost £6), 110 xformer, comprehensive handbook, £35. Jones Micromatch s.w.r. commercial indicator, 200 u.A. meter, built-in home-brew 52 ohm coupler, compact unit, works fine, £4/10/- SCR522 Transmitter only with tubes, unmodified, £7. Will freight VK3LB, Box 35, Dimboola, Vic. All enquiries answered.

WANTED: Beam Rotating Motor and accessories for lightweight Tri-bander. Reply Harry Kinnear, Sandara Court, Mt. Eliza. 78-71119, all hours.

WANTED: Gilt motor or similar device to rotate a beam and/or direction indicator for the same. VK3AIE, R. S. Tucker, 40 Panoramic Rd., Nth. Balwyn, E.9, Vic. 85-4815.

WANTED: One inch C.R.O. or one inch tube on its own, for use as modulation indicator. VK3AXE, 383 Warrigal Rd., Burwood, Vic. (Phone 28-2326).

WANTED: Service Manual for TR1936 v.h.f. transceiver. M. S. Odell, L3251, 42 Kooyong Road, Caulfield, Vic.

WESTON 50 Watt Base 6 m., a.m. modified for 53.032 Mc., 2E26 final, 807 modulators, comp. instruct. manual, wired for extended local control, £35. VK3AOK, P.O. Box 60, Mt. Waverley, Vic. (560-9188).

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Xtal locked. Complete with valves less xtals.
Brand New Condition. £13 plus freight.

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0-500 uA, 52/6; 0-100 uA. £3/9/6; 0-1 mA, 45/-;
0-10 mA, 45/-; 0-50 mA., 45/-. Full range of
Meters and Multi Testers available.

PHILIPS TA101C SIGNAL GENERATOR

100 Kcs.-23 Mcs., attenuation to less than 1 microvolt, 400 c/s. mod., 6v. d.c. and 230v. a.c., £25.

TR1935 V.H.F. TRANSCEIVERS

Range 115-156 Mcs., a.m. mod., £15. Weight 25 lb.

ARC1 V.H.F. TX/RX

832A Fnal, 100-150 Mcs., £15.

MN26C COMPASS RECEIVER

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